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I.—*Field-Notes on the Birds of Southern Kamerun, West Africa.* By G. L. BATES, C.M.Z.S., M.B.O.U.

(Plates I. & II. and Text-figures 1-3.)

THESE notes form a supplement to the series of papers on my birds by Dr. Bowdler Sharpe, who has given to my collections much of their value by his account of them. They would have fitted in well with his papers, but it was impossible to publish them in that way, not only because they were not prepared in time, but also because many of the facts now given were not ascertained till long after I had sent home the specimens of the birds referred to. The information here given has been gathered slowly, during a number of years. Some of the notes have already been published with Dr. Sharpe's papers in 'The Ibis' (1904, pp. 89, 592; 1905, pp. 89, 462; 1907, p. 416; 1908, pp. 117, 317). Hence a complete account can be obtained only by referring to them. To some groups of birds, such as the Accipitres, I have added very little here.

I collected from 1901 till 1904 at and about Efulen, and made three short trips to the Ja River in the latter part of that period. After a journey home, in 1904-1905, I again returned to Africa, and collected at Efulen in the latter year till September, when I made a trip much farther towards the interior than I had gone before, into the Njiem or Zima

Country, where I reached the village of Bezam. On this trip most of my time was spent in travelling, and I got but few birds and nothing new. After returning to the coast at Kribi, I went back to the neighbourhood of the Ja, and settled at the village of Bitye, which has been my headquarters since December 1905. In 1906, and again in 1907, I proceeded to the coast, and on both trips spent some time in collecting between Efulen and Kribi. In April 1908 I went to the coast once more to take the steamer for England. The places where I collected are marked on the map which appeared in 'The Ibis' for October 1908 (p. 558, pl. xi.) by a line drawn under the name.

My specimens were obtained in various ways. The least effective way, so far as the mere procuring of the birds was concerned, was shooting them myself. Still, I have always done this to some extent, for the sake of a better acquaintance with the birds in life. Certain natives have often been entrusted with my guns to shoot specimens. Many of the larger forms have been shot by my hunter, when his principal object was four-footed game for meat. Some birds I have bought (with little trade-articles) from natives, who shot them with their own guns in the days when they could get powder. Now that is no longer possible, for the German Government has shut off the supply. I am the less sorry for this, as it has caused the native hunters to return to their crossbows and little arrows, which do not damage specimens so much as shot. The bows they hold out in front of them when they shoot, at arm's length (see text-fig. 1, p. 3), sighting along the shaft or stock, on which is laid the tiny arrow. These arrows are made of the split dry stalks of the *Raphia*-palm—the same that are used here in building houses. They are only about eight inches long and little larger than a knitting-needle. I never cease wondering at the skill displayed even by boys, who can send one of these little splinters through the body of a bird no bigger than the thumb, often from a considerable distance. The same little arrows, when poisoned, are used to kill monkeys, and even the large apes. For birds they are not poisoned. The bow and little arrows

have been especially useful in shooting birds sitting on their nests.

The best way of obtaining certain kinds of birds has proved to be by snares. Native boys are always skilful at this

Text-fig. 1.



Natives with their crossbows and arrows.

method, for they have been accustomed from infancy to catch little birds to eat. For birds brought to me thus caught I pay with fish-hooks, which I use as a kind of currency, taking them back again in exchange for larger articles at a certain rate. The way in which these snares are set on the

ground in the forest, and baited with termites strewed around, was described very well in the first letter I wrote to Dr. Sharpe years ago (see 'Ibis,' 1904, p. 92). But I did not then know the birds very well, and by the

Text-fig. 2.



Native setting snares for birds in a Cassava-patch.

"Ntyoû" I meant *Bleda notata*. *Criniger chloronotus* is one of the species that are never captured in this way. Birds that are caught in numbers by means of these snares baited with termites are *Bleda syndactyla*, the different species of *Neocossyphus*, *Turdinus*, *Alethe*, and *Callene*, and

sometimes, in the forest, the Ground-Dove (*Calopelia*) or the Forest-Francolin (*Francolinus lathamii*). Snares similarly set in the smaller second-growth forest often catch *Cossyphi* and Warblers, such as *Burnesia*, and occasionally other birds. When used in cassava-patches they catch the village Ground-Doves (*Chalopelia*). Similar snares may be set in small trees, the bent stick being tied to a twig. By doing this in trees full of the fruits which the birds eat, certain species are more easily caught. One of the best trees for this is the "A'bâe," a species of *Alcornia*. Many kinds of birds eat the catkin-shaped fruit of a big weed called "mvomijang," which is really a kind of pepper (*Piper subpeltatum*), and little snares are often fixed on these weeds. Likewise snares set on a pepper-plant of another sort (*Capsicum*) catch many birds. Flowering shrubs, and especially that called "tya'a" (*Leea*, of the order Ampelideæ), attract many Sun-birds, which are caught in numbers by little snares fixed on the bunches of flowers.

The general character of the country in Southern Kamerun could not be better described by me now than has been already done in 'The Ibis' (1904, p. 592). I wish to emphasize again the distinctness, as regards their bird-population, of the primitive forest from the smaller tangled growth of trees, bushes, sedges, grass, and weeds which covers ground that has been cleared and cultivated in former years. Most birds belong strictly to one kind of country or the other, and are seldom or never seen out of the kind to which they belong. The region of the Ja is made up largely of the opener country, from which the primitive forest has been cleared. Hence the birds peculiar to this country are abundant there, and a number of species are found which do not occur in the more densely forested district of Efulen. Such are *Pyromelana*, *Serinus*, *Colius*, and the Kite, to name only a few. It is noticeable that these are birds which have a wide Ethiopian range. Those birds of the great forest nearer the coast that were not found in the Ja region, such as *Phasidus*, *Picathartes*, and *Geocichla*, are mostly forms peculiar to the West-African forest. Not very far to the

north of Bitye, I am told, the grass-land of Northern Kamerun commences, and some species probably wander from it into the country where I have collected.

Though this paper consists mainly of field-notes, I have recorded a few specimens collected since those included in Dr. Sharpe's papers. These are mainly either additional examples belonging to the species already reported on, about which I had something in particular to say—for instance, to describe the stomach-contents, the nest and eggs, &c.; or they are specimens of well-known species, mainly migrants from Europe, that had not yet been reported. No list of the specimens belonging to my later collections is attempted here.

Having a number of eggs to describe, I have been fortunate in obtaining the help of Mr. W. R. Ogilvie-Grant, whose brief descriptions of the eggs, enclosed in square brackets, add much to the value of this paper.

The arrangement followed is that of Dr. Reichenow's 'Vögel Afrikas' (cited as V. A.), and the number preceding the title of each species in this List is the number of the species in that work.

The native names are given in square brackets, and follow the title.

112. PTERONETTA HARTLAUBI (Cass.). [Alot, or Aloteke.]
Sharpe, Ibis, 1904, p. 98; 1907, p. 425.

Pteronetta cyanoptera Reich. V. A. i. p. 123.

The Wild Ducks of this country are generally seen in pairs, but sometimes a trio occurs—a pair with a third "tagging after." Once, in August, I saw four of them come and perch on the big limbs of a cotton-tree and perform some queer antics. They perched in pairs; the birds of each pair faced each other on the limb, bowed their heads, and rubbed each other's bills and heads, all the while making a raucous noise. After keeping this up for a few minutes they flew away.

Two young ducklings that must belong to this species, which is the only one in the country, were brought to me at

different times by people who said that they had caught them on the banks of streams. Each had four light spots, forming a quadrilateral, on the back.

126. *GLAREOLA MELANOPTERA*. [Amalaka.]

These birds were seen, two or three together, several times during September, flying about over the village street, and frequently alighting in it. This seemed to be the only spot of bare ground which they could find in this forest-covered country. Migratory Wading Birds of a number of kinds have been seen to do the same—not only the Ringed Plovers already reported, but some of which I failed to get a specimen. In September of a previous year a flock of some long-billed Waders came and stood in the street.

153. *CHARADRIUS HIATICOLA*. [Amalaka.]

Ægialitis hiaticula Sharpe, Ibis, 1907, p. 422.

No. 2839. ♂ hiem. Biteye, Nov. 1, 1907.

156. *CHARADRIUS FORBESI*. [Amalaka.]

No. 2835. ♀. Biteye, Oct. 31, 1907.

These two Plovers were also shot while walking in the village-street in the manner described under *Glareola melanoptera*. So were the Ringed Plovers of the year before, *Ægialitis hiaticola* and *Æ. dubia*, already reported ('Ibis,' 1907, pp. 422, 423).

247. *SAROTHRURA REICHENOVII*. [Otua-bijilik.]

Sharpe, Ibis, 1907, p. 421.

Sarothrura elegans Reichen. V. A. i. p. 287.

♂. Biteye, Dec. 5, 1907.

This specimen was caught in a snare baited with termites. In its muscular gizzard, and also that of another caught at Efulen two years before, was much coarse sand. The latter was brought in at evening, doubtless caught in the hands, and kept alive overnight. While in captivity it made a curious noise, like a low growl.

My note on these queer little Rails ('Ibis,' 1907, p. 421) was put under the head of *S. bonapartei*, because that was the species recorded in Dr. Sharpe's previous paper. Doubtless what was said there applies to both species.

260. *PODICA CAMERUNENSIS*. [Mveleku.]

No. 2489. ♂. Bitye, April 24, 1907. Testes large. Stomach (gizzard) containing bits of prawns.

This is a very different-looking bird from any other that I have obtained and agrees exactly with the description of *P. camerunensis*.

260 a. *PODICA JACOBI* Reich. (?).

No. 2877. ♂. Bitye, Jan. 26, 1908. Testes rather large.

No. 2991. ♀. Bitye, March 23, 1908.

Both these specimens are adult, as indicated by their breeding-organs. They agree with the description of *P. senegalensis*, except in having white throats and smaller measurements: the male, wing 190 mm., tail 135, culmen 40; the female, wing 171 mm., tail 140, culmen 37. They are just like the specimens of *Podica* that I have sent in former years, which have been named *P. camerunensis*, but incorrectly.

I find in the 'Journal für Ornithologie' (1906, p. 325) the following note:—"Dr. Reichenow exhibited a new *Podica* from Kamerun, which he named *Podica jacobi*, and which differs from *P. senegalensis* in the much smaller size, and apparently always retains the white throat, even in age. Length about 370, wing 157, tail 125, bill 35, tarsus 35 mm."

My specimens of *Podica*, of both species, have been shot by natives, who say that they find the bird swimming, but that, when frightened, it flies to the bushes or low branches along the bank, often, on first rising from the water, using both its wings and its feet as it skims along the surface. The stomachs are very muscular, and sometimes contain what appears to be mud and trash from the margins of streams. These birds are very ill-smelling and disagreeable to skin.

313. *BUBULCUS IBIS*.

Bubulcus lucidus Sharpe, Ibis, 1907, p. 424.

♂. Bitye, May 18, 1907. With long ornamental feathers on the crest, back, and breast.

♂. Bitye, Nov. 11, 1907. Without the ornamental feathers.

This Egret was never met with at Efulen, and was observed only occasionally at the Ja, and then apparently in transit. It was seen only in the months of May and November, flying about the village or alighting in the street, in the manner of the Wading Birds mentioned above. One individual was shot on the roof of a native hut. I think that there must be a migration of these birds, perhaps only a part of them, from the great plains of the Haussa States in Northern Nigeria, where Hartert found them so plentiful, when the drought sets in there in autumn. They must go to some open country to the south, such as the lower Congo or Angola, passing over the forest-country between, and returning north in May. In passing over this country, so thickly covered with trees, these birds of the open plains are attracted by the bare ground in the villages.

337. TURTUR SEMITORQUATUS. [Zum.]

Streptopelia torquata Sharpe, Ibis, 1907, p. 419.

The "Zum" has two different calls, which are interpreted by the natives as a conversation, in a tone of mutual fault-finding, between a man and his wife. The woman says, "The season is here, and no clearing made yet" (for planting); the man says, "And not a pot on cooking." These sentences in Bulu, spoken with the proper intonations, resemble two calls—a longer and a shorter one—made by this Dove. But I do not think that they are those of the male and the female, but both, probably, of the male. When I hear one call, apparently answered by another bird at a little distance, the second has the same call as that of the first, and it is not really an answer, but, rather, an imitation by another male, which takes up the tune as it were, while the female is probably close by and silent. In Mr. J. C. McLean's very interesting notes on the birds of New Zealand ('Ibis,' 1907, p. 535) he tells about the two different songs of the "Tui" bird in different localities. One song he first heard in the bush towards the end of September, and it was "all the rage" on Oct. 14, while in the open country another song was "the fashion." He suggests possible reasons

for this, as difference of food. But it struck me that in the words "the fashion" was suggested the true explanation. Birds' songs and calls are often imitated from other birds, generally of the same species.

The "Zum" builds in small trees in old cleared ground. In a nest found in February, in the thick top of a small tree not far from my house at Bitye, was one nestling; it would be truer to say that it was *on* the nest, which was a mere bed of little sticks. This nestling was entirely covered with hair-like down of a pale tawny colour, like the hair of a "yellow" dog. Another nest, found in January, had one egg lying on it, which measured 32×24 mm.

[The egg is of a nearly perfect oval shape, somewhat glossy and pure white.—O.-G.]

383. *FRANCOLINUS SQUAMATUS*. [Okwal.]

Sharpe, *Ibis*, 1907, p. 418; Reich. V. A. p. 469.

To my note about the Okwal ('*Ibis*,' 1907, p. 418) I add here merely an account of some eggs. They were brought to me three times in December and January last. The boy who brought the first lot said that he first found six, lying on dry leaves on the ground, and left them. On going back afterwards to get them, he found only four, which he took. They were all nearly ready to hatch. They varied somewhat in size—from 45–49 mm. long by 33–34 broad. The next lot consisted of four—"all there were." They measured 42–43·5 mm. long by 34–35 broad. The last lot consisted of six, measuring 41·5–43 mm. long by 34–35 broad. About six must be a full clutch, and not two or three, as I thought before. These eggs have extremely thick and hard shells.

[The nine eggs are of a broad oval shape, or sometimes slightly pointed. The shell is slightly pitted all over, almost devoid of gloss, and of a uniform buff colour.—O.-G.]

424. *FRANCOLINUS LATHAMI*. [Obem.]

Sharpe, *Ibis*, 1907, p. 416.

Here, again, I have only to add to my former note ('*Ibis*,' 1907, p. 417) an account of some additional clutches of eggs brought to me. These have still been always two in

the clutch, so that I think it is safe to say that two is the number usually laid. They vary a good deal in size—from 36–42·5 mm. long by 25–27 mm. broad. Only a few of them could be saved, as they nearly all had to be broken to get out the contents. The shells were very thick and hard.

[Four eggs are of a rather long, pointed, oval shape, indistinctly pitted and slightly glossy. They are uniform rich buff, somewhat paler towards the poles.—O.-G.]

453 a. *KAUPIFALCO MONOGRAMMICUS*. [Viol-Obam.]

Sharpe, Ibis, 1905, p. 465.

♀ ♂ ad. Bitye, Feb. 3 & 6, 1908.

♂ ad. Akok, 35 miles from Kribi, April 12, 1908.

The stomach of the last specimen contained a few bones, apparently of a small rodent, and the tail only, recently swallowed, of a skink. The tail had evidently been all that the Hawk had secured of the lizard. In the stomachs of the others were a variety of things—the foot of a skink, scales of a snake (not of a lizard), and remains of a small rodent.

499. *MILVUS ÆGYPTIUS*. [Obam.]

Sharpe, Ibis, 1904, p. 103.

Kites are abundant on the Ja, but are seen only during the months from November to April inclusive. They appear and disappear, not suddenly, but gradually, and stray individuals may be seen in October, or even September, before the others come, or in May, after the others have gone away. Their coming and going are not timed in accordance with any change in the seasons here, for their arrival is in the midst of the second rainy season, and their departure is in the midst of the first rainy season. Their movements must be timed according to changes in the seasons in the country from which they come, and their presence in Southern Kamerun seems to coincide with the dry and wintry season in Northern Kamerun and Northern Nigeria.

I have seen no indication that Kites breed at the Ja, and think the statement made in my former note that they do so, which I got from the natives ('Ibis,' 1904, p. 602), was a mistake. They must have seen the nests of some other bird of prey, such as *Polyboroides*.

Besides the refuse picked up around villages, the Kites eat palm-nuts and catch wild mice and young chickens. When I had a couple of monkeys' skulls drying on the roof of my kitchen I had to tie them to a heavy log to prevent them from being carried off by the Kites.

On my homeward voyage, both in the Kamerun River and at Dakar, Kites were seen following in the wake of the steamer and catching up bits of refuse from the water, just like the Gulls.

501. *PERNIS APIVORUS*.

Sharpe, *Ibis*, 1905, p. 465.

a. ♂ ad. Bitye, March 7, 1907. Under parts almost white. Stomach containing large insects, including some larvæ that looked like very large maggots, which my hunter found the bird digging out of a rotten log over a stream.

b. ♀. Bitye, Feb. 20, 1908. Abundant dark spots and bands beneath. This bird had some small ova in the ovary. Does it reach its breeding-place early in the spring?

531. *SCOTOPELIA BOUVIERI*.

Sharpe, *Ibis*, 1904, p. 603.

♂. Bitye, Dec. 30, 1907.

The stomach contained many bones of small fishes and some bits of prawns.

552. *SYRNIUM NUCHALE*. [Akung.]

Sharpe, *Ibis*, 1907, p. 427.

When I skinned my specimen I was struck with the difference in size between the ear-openings on the two sides of the head. On measuring these, I found the lengths of the elliptical slits in the skin that form the entrance to the ear-cavities to be as follows:—right ear 20 mm., left 14·5 mm. In all specimens seen since then the same difference has been found, though not always to so great an extent. In one the ear-openings measured: right 19, left 13 mm.; in another, right 19, left 14·5 mm.; in another, right 17, left 14 mm. All of these happen to have been male birds. In the size of the ear-cavities in the skulls no difference was observed.

556. *GLAUCIDIUM SJÖSTEDTI*. [Akung-minkan.]

Sharpe, Ibis, 1907, p. 427.

I obtained a female specimen, which had been taken on its nest in a hollow tree in the forest, where it was sitting on one egg. The hole in the tree in which it had been caught was said to have been only about five feet from the ground. The time of year was August (dry season). The bird had been eating a wild mouse as well as beetles. The egg measured 34×28 mm.

[The egg is of a wide perfect oval shape, almost devoid of gloss, and pure white.—O.-G.]

612. *TURACUS ZENKERI*. [Mba.]

Sharpe, Ibis, 1907, p. 435.

This is the Touraco of the Ja, while *T. meriani* is that of Efulen and the coast. When I have been walking along the road going to Bitye, I have often carefully observed where I first saw *T. zenkeri*, for the two species can be distinguished at a distance, if seen plainly, by their crests. Along the road I always saw the coast-species, and I think that the domain of *T. zenkeri* must begin about Bitye, but I have never found *T. meriani* there. There seems to be a sharply defined boundary between them.

A nest was found in August (dry season). It was in the thick top of a low tree in a bit of forest near the village, at the edge of a small stream. It was built of tiny dry twigs laid loosely together, so that it fell to pieces when taken in the hand. There were two eggs, both of which measured 37×29 mm.

[Two eggs of a perfect oval shape, devoid of gloss, and of a uniform creamy white.—O.-G.]

615. *CENTROPUS MONACHUS*. [Du'u, or Esil.]

Sharpe, Ibis, 1907, p. 439.

Female, with an egg in the oviduct, Bitye, July 30, 1906.

As has been said ('Ibis,' 1907, p. 439), this species is a characteristic bird of the second-growth trees and bushes

and jungle of old cleared land around villages. In such a situation was the nest found that has been already described. Subsequently another was found in a very different sort of place. It was in a small marsh surrounded by the forest, such as the people call "éngas," formed by the spreading out of the water of a little stream over several acres. The nest rested upon the coarse grass of the marsh, which was bent together to form its base, with a good many dry blades broken off and laid on for lining, and some standing stalks also bent and disposed over the nest to form a screen. One egg only had been laid, but another nearly ready to be deposited was found in the oviduct of the bird which was shot. Twice subsequently eggs of this bird have been brought to me which were said to have been found in an "éngas" or marsh. Butler ('Ibis,' 1905, p. 356) states that in the Upper Nile district this species is a bird of the "sudd." In Kamerun it seems also to frequent marshes to some extent, though usually seen on dry ground.

Three eggs appear to form the clutch. Leaving out one clutch of three, which were less surely identified than the others and were somewhat smaller, my eggs measure: length 35-37.5 mm., breadth 26-29.5 mm.

[Nine eggs are of a blunt oval shape, practically devoid of gloss, and pure white.—O.-G.]

Besides the insect food—usually grasshoppers—found in the stomachs of most specimens, and the larger prey already reported, I have found in the stomachs of birds of this species bits of the shell of a small speckled bird's egg, like that of a *Cisticola*, and bits of the shell of a water mollusk.

I have mentioned the native story that this bird adorns its nest with the heads of the snakes that it has killed. Though I have never found these, I have seen a poisonous snake—a half-grown African cobra four feet long—that had been killed by one of these birds. A woman called me to see the dead snake, which was found lying with its head bruised and pierced. She had seen the bird fly up from the place, and on going there had found the snake lying dead.

634. *CERCOCOCCYX MECHOWI*. [Mon-Obain.]

Sharpe, Ibis, 1907, p. 436.

This smaller Cuckoo with the remarkable tail closely resembles in some of its call-notes the common larger Cuckoo just mentioned. It also says "Za-so-foé" in a similar manner, though in a higher tone of voice. I have heard one of these birds making this call, and uttering at the same time other interpolated notes that seemed to be peculiar to itself. It appears to imitate the call of *Cuculus gabonensis*, which in its turn seems to imitate that of *C. solitarius*.

The food of *Cercococcyx* consists almost exclusively of caterpillars.

637. *CUCULUS GABONENSIS*. [Za-so-foé, or Mon-Obam.]

Sharpe, Ibis, 1907, p. 436.

The note published in a previous paper ('Ibis,' 1907, p. 435) about the call-notes of the common Cuckoo of this country should, I suppose, have been under this name and not "*Cuculus solitarius*." Its characteristic call of "Za-so-foé" seems to fit exactly the descriptions which I have read of the call of the South-African "Piet-mijn-vrouw." The other loud excited call described in my former note I have since watched a bird make while it chased another (probably its mate) from branch to branch of a tree.

A hen bird (No. 1901) had an egg in the oviduct just ready to be laid, which got broken before it could be taken out. It was not larger than the egg of *Pycnonotus gabonensis*, if as large.

[Judging from the fragments, I should say the egg appears to have been of a somewhat pointed oval form and almost devoid of gloss. The ground-colour is white, sparingly marked, chiefly at the large end, with small spots and dots of a dull purplish brown and lilac-grey.—O.-G.]

651. *INDICATOR STICTITHORAX*. [Mali.]

Sharpe, Ibis, 1907, p. 440.

All my four specimens of this bird were obtained on my collecting-trip to the heavily forested region near the coast in September 1906. They were shot in the tree-tops

near our camp, one at a time, on different days. They were seen, each time, sitting silently, watching the bees buzzing about the camp, I think, for bees are attracted to a little fresh clearing in the forest. The stomach-contents of the birds were mainly particles of wax, mixed with bits of insects, and had a smell of honey; but sometimes there were only bits of insects. These birds have the toughest skin of any that I know; it is like strong yellow parchment. All of them had much fat underneath it. The tough skin, and perhaps the fat also, must be a protection against bee-stings.

I never heard these birds or any other *Indicator* make a sound. My boys told me that the "Mali," as they call all the species of this genus, makes a little cheeping cry of "Wôé! wôé" ("wôé" means "honey"). They say that sometimes, on going to where the bird is, they find honey. But the natives here know nothing about following it through the forest; indeed, this would be a difficult thing, even for a native, to do.

653. INDICATOR CONIROSTRIS. [Mali.]

Sharpe, *Ibis*, 1907, p. 440.

A very young bird (No. 2416), obtained later than those which have been reported on in Dr. Sharpe's paper, is interesting because of the place in which it was found. It was taken in the hole of an Ovôl (*Heliobucco bonapartii*). In other holes in the same dead tree were birds of that species; but the little *Indicator* was found in its hole alone, so that it formed, apparently, the entire family of its foster-parents. In its stomach was found, besides insects, the fruit of the "asen" tree, *i. e.* the usual food of the Barbet, but not of the Honey-Guide.

This bird is too young to shew certainly to what species it belongs, except that it is already too large to be *Indicator exilis*. The only other species obtained thus far at the Ja is *I. conirostris*, and the young bird looks like that species.

I have noticed in examples of different species of *Indicator* that the rim of the nostrils forms a raised ring, which is not seen in a specimen after the skin becomes dry.

(See my note in *The Ibis*, 1904, p. 89.)

657. MELIGNOMON ZENKERI.

No. 2181. ♂. Bitye, Jan. 19, 1907. Stomach containing a mass of fine flakes of wax, mixed with tiny black particles.

695. GYMNOBUCCO BONAPARTII. [Ovôl.]

Reich. V. A. ii. p. 139.

Heliobucco bonapartei Sharpe, Ibis, 1907, p. 441.

Several nestlings have been brought to me at different times, caught in their holes in decayed trees. These young birds always have the bill dull yellow at the base, and blackish at the tip—quite different from the uniform horn-colour of the adult. Besides that the feathers of the forehead, that become stiff and yellowish in adults, are soft and dark in the younger birds.

Nine individuals, taken by my boys from one colony, were shown to me on the 1st of April—five adults and four young of different ages. The boys had stopped up the holes the evening before, when the birds were inside and not alert enough to fly away, and had chopped the dead tree down in the morning. It was in one of the holes of this colony that the young *Indicator* was caught (see above, p. 16). Besides the birds, they brought a single egg that was found in one of the holes. It measured 22 × 18 mm.

[An egg of this species is of a perfect oval shape, devoid of gloss and pure white.—O.-G.]

694. GYMNOBUCCO PELI. [Ovôl.]

Sharpe, Ibis, 1907, p. 441 ; Reich. V. A. ii. p. 138.

I wish to give briefly my reasons for believing that there are really two species, *G. peli* with nasal tufts, and *G. calvus* without them, and that the one is not merely the young or immature form of the other.

Though I found the two forms in the same locality at Efulen, as Dr. Sharpe has noted ('Ibis,' 1904, p. 616), I have found only the one with tufts at the Ja, and there I have found it of all ages.

Young birds of this species, like those of *Heliobucco*, have the bill yellowish at the base and blackish at the tip ; and

the culmen less ridged than old birds, which have a sharp ridge reminding one of the incipient ridge in a small Hornbill. Now, supposing that these signs of youth, seen in the bill, hold good in *G. calvus* as well, there are five birds in the large series of the British Museum, of the form without tufts, that are young. As an additional proof that they are young, they all have a few small scattered feathers on the top of the head.

Here we have birds both old and young *with* tufts, and birds both old and young *without* tufts.

710. *BARBATULA LEUCOLEMA*. [Omvek.]

Sharpe, *Ibis*, 1907, p. 442; Reich. V. A. ii. p. 147.

These little Barbets have several times been caught in holes in dead stumps or limbs. No. 1883 was caught thus in a hole in a small stump, only a few feet from the ground. The stump was half decayed and full of termites. The cavity excavated by the bird was 100 mm. in greatest depth and 55 mm. in greatest diameter, the largest part not being the bottom but a little over halfway down. The diameter of the round entrance-hole was 20 mm., just big enough to admit the fore-finger. In the bottom was a little bed of fine chips, on which lay two glossy white eggs, which were very thin-shelled and fragile and got broken. But one was measured before it got broken, and was 15×11.5 mm. in size.

Other females of this species were brought by boys, who said that they caught them in their holes; but no other eggs came to hand; the eggs generally got broken before they reached me. In one case the boy reported finding three eggs.

715. *BARBATULA SUBSULPHUREA*. [Omvek.]

Sharpe, *Ibis*, 1907, p. 441.

A specimen (1985) was caught in its hole, which was in a small dead limb, 50 mm. in diameter. The hollow made by the bird ran downward about 70 or 80 mm., and was almost as large as the limb, leaving only a thin shell of wood around it. There was nothing in the hole but the bird,

which, on dissection, proved to be a female, not yet very near the laying time. It must have been providing its breeding-hole long beforehand—unless these holes are made to live in, and not for breeding only. That these little birds do their own excavating there can be no doubt. While the bird I have just mentioned was kept a prisoner alive in its hole for a few hours, it did some vigorous hewing, trying to cut its way out. The wood was half-decayed.

In the stomachs of birds of this species and the last have several times been found, besides fruit, what looked like small moth-cocoons.

738. *VERREAUXIA AFRICANA*. [Obô'ô-Minkomkome.]

Sharpe, *Ibis*, 1907, p. 444.

In my note in 'The Ibis' (1905, p. 93) I spoke of seeing one of these tiny Woodpeckers peck the grub out of the heart of the stem of a small common endogenous plant. That this plant is the usual source of their food is proved by the Bulu appellation, for the long word forming the second half of the bird's name is that of the plant mentioned, while "Obô'ô" means "hewer." But I have also seen one of these birds pecking at the bark of a tree, making a tapping noise almost as loud as that made by an ordinary Woodpecker.

One day a boy brought me a treasure in the shape of a section of the end of a small stump, about three inches in diameter, green up to about half a foot from the top; and in this dry end, which was still hard and little decayed, a hole had been bored, in which were two tiny white eggs. He brought also the bird caught in the hole, a *Verreauxia*, which I skinned and numbered 2866; it was a male, and yet the abdomen shewed that it had been sitting. The cavity excavated in the dry end of the stump had a diameter of about 40 mm. and a depth of about 50 mm., and the entrance-hole, round as if bored by an auger, would just admit a 12-bore gun cartridge (about 20 mm. in diameter). Size of the eggs 14 × 12 mm. and 13·5 × 11·5 mm.

[Two eggs are of a blunt rounded oval shape, slightly glossy and pure white.—O.-G.]

DENDROMUS EFULENSIS. [Ngômôkô.]

Dendromus efulensis Chubb, Bull. B. O. C. xxi. p. 92
(May 1908).

The food of these birds consists almost exclusively of the many small black ants that crawl on trees. One was found

Text-fig. 3.



Nest of *Dendromus efulensis*.

to have used the ants in another and very peculiar way. These ants make large nests that look like great excrescences on the trunks of small trees, partly attached along the side and partly hanging, sometimes two feet or more in length. They are papery like a hornets' nest, though heavier and

not so tough; they are of material that will burn. When one is touched myriads of ants swarm out. One day my boy saw a Woodpecker enter a hole in one of these ants' nests. He covered up the hole, and thrust a palm-stalk dart through the ants' nest, transfixing the bird; and then brought ants' nest, bird and all to me. The bird was a male of this species, and forms my specimen No. 2871. The ants' nest was almost deserted by ants, yet two or three were seen crawling over it. The bird and its mate must have first eaten the ants (which would make a number of meals, I should think), and then made a hollow in the deserted home and used it for their own breeding-hole. The cavity was large and would be easy to excavate. There were two eggs, which both measured 22×18 mm.

[Two eggs are of a rather short and perfectly oval shape, slightly glossy and pure white.—O.-G.]

767. *DENDROPICUS LAFRESNAYI*. [Ngômôkô.]

Dendropicus camerunensis Sharpe, Ibis, 1907, p. 443.

Dendropicus lafresnayi Sharpe, Ibis, 1904, p. 620.

776. *DENDROPICUS GABONENSIS*. [Ngômôkô.]

Sharpe, Ibis, 1904, p. 619; 1907, p. 443.

These are both birds of the open country and second-growth forest, and are never found in the primitive forest. *D. lafresnayi* was the commoner species at the Ja, *D. gabonensis* at Efulen. These Woodpeckers differ from *Dendromus* in their food; for they were never found to have eaten ants. Small white grubs were the usual contents of their stomachs.

The lively cry of *Dendropicus lafresnayi* was one of the commonest bird-sounds in the bushes and small trees surrounding Biteye. At Efulen, too, I heard a bird that looked like *Dendropicus* (probably *D. gabonensis*) utter a shrill piercing cry.

778. *COLIUS NIGRICOLLIS NIGRISCAPALIS*. [Nsesal.]

Colius nigriscapalis Sharpe, Ibis, 1907, p. 434.

As I have already said something ('Ibis,' 1907, p. 434) of the general habits of the Colies, I will speak only of

their nests and eggs here. Of no bird around Bitye is it so easy to find the nests (excepting, of course, those of the common Weavers) as of the Nsesal. These nests are usually set in the forks of thick bushes on waste ground or in the borders of gardens. They are merely thick flat pads of fibrous material of various kinds, piled up with little skill, but slightly hollowed out in the middle. A common material is the grey beard-like *Usnea* from the limbs of old trees. In the nest, among the eggs or the nestlings, are laid trashy fragments of various kinds, generally bits of leaves, which are sometimes still fresh and green; but also pieces of bark, and once I found a grain of corn. A nest that has long been in use has more of this trash than a new one.

The number of eggs laid is generally two, never more than three. They vary in size from 20–23 mm. long by 16–17.5 mm. broad.

[The ten eggs examined are of a wide oval shape and more or less pointed towards the smaller end. They are pure white with a rather rough chalky surface entirely devoid of gloss.—O.-G.]

804. CERATOGYMNA ATRATA. [Ongung.]

No. 2545. ♂. Akok (between Efulen and Kribi). June 20, 1907. Stomach full of fruits of the Rattan Palm.

No. 2606. ♂. Akok, July 9, 1907. Crop and stomach containing forest fruits.

No. 2618. ♂. Akok, July 11, 1907. Testes very large.

No. 2635. ♂. Akok, July 16, 1907. Testes large.

No. 2659. ♀. Akok, July 24, 1907. Small ova in the ovary. Moulting.

These big black Hornbills are birds of the forest, and hence more often seen and heard in the dense forest near the coast than in the Ja district. Their clamorous calls (or squawks) and the rushing of their wings are familiar forest-sounds, as are the similar noises of the Miam (*Bycanistes albotibialis*), which have been already described ('Ibis,' 1905, p. 90). Big and ugly though the birds are, they are very amorous, and the harsh clamour that they make seems to be the mating-call of the male. I have known a male "Ongung"

to be making such a clamour as to drown the sound of people crashing through the underbrush beneath him, till he was shot.

No. 2618 was shot by my boys while in the act of plastering up the hole in a tree where its mate probably was. There was clay on its bill and on its helmet, about the tip and sides. The boys said that they heard the cries of the female inside the hole. I went next day to see the place and tried to get a man to climb the tree, but nothing would induce him to try it. The tree was large and tall, and stood apart from others, and was really unclimbable. The hole was so high up, and so hidden by a limb and by parasitic ferns, that it was invisible. Little bits of clay were strewn on the ground at the foot of the tree. While I was there a pair of these Hornbills, a male and a female, came flying round the place. Was one the female that was being enclosed the day before, which had got another mate? This male perched on the limb where the hole was, which was nearly upright, in the position of a Woodpecker, supported by its tail.

A favourite food of this and other Hornbills is the fruit of the *Calamus* palm.

813. *LOPHOCEROS FASCIATUS*. [Okwôkwaé.]

Reich. V. A. ii. p. 248.

This is the commonest of the smaller Hornbills. Individuals of this species are often seen in small parties, in the trees left standing in the clearings and in the second-growth forest, where their querulous, disagreeable cries are often heard. Their whole appearance and manner are unpleasant. Their flight is slouching and uncertain, and they seem scarcely able to manage their long wings and tails properly. A favourite food with them is caterpillars, especially the large kinds, which the natives also eat, and the birds gather around trees that are infested by them.

843. *HALCYON BADIUS*. [Akwaé.]

Sharpe, Ibis, 1907, p. 429.

While the more typical small Kingfishers of this country live and breed along the streams, those of the genus *Halcyon*

do not in any way shew a preference for the neighbourhood of water. A man once caught for me a bird of the commonest species, *H. badius*, in a hole in a tree, where it was sitting on the two eggs. The young inside the eggs were already cheeping and of course the eggs had to be broken, but I managed to leave one of them nearly whole so that it could be measured; its size was 26×24 mm.

[One egg (in which incubation was evidently far advanced) is of a perfectly circular shape, somewhat glossy and pure white.—O.-G.]

867 *a.* MELITTOPHAGUS GULARIS AUSTRALIS.

Sharpe, Ibis, 1907, p. 431.

No. 2904. ♀. Breeding-organs and skin of abdomen indicating a sitting bird. Caught in its hole in a bank, in which were found also two eggs. One was broken, the other measured 24×20 mm.

[The one egg is of a short oval form, somewhat glossy and pure white.—O.-G.]

868. MELITTOPHAGUS MUELLERI.

Merops batesiana Sharpe, Ibis, 1907, p. 432.

In habits this species resembles *Melittophagus australis*, for both of them are generally seen in pairs, never in flocks, and I have strong reason to believe that the present species, like *M. australis*, breeds in holes in banks, a single pair in a place. Thus they differ in habits from those species of the genus *Merops* which are gregarious.

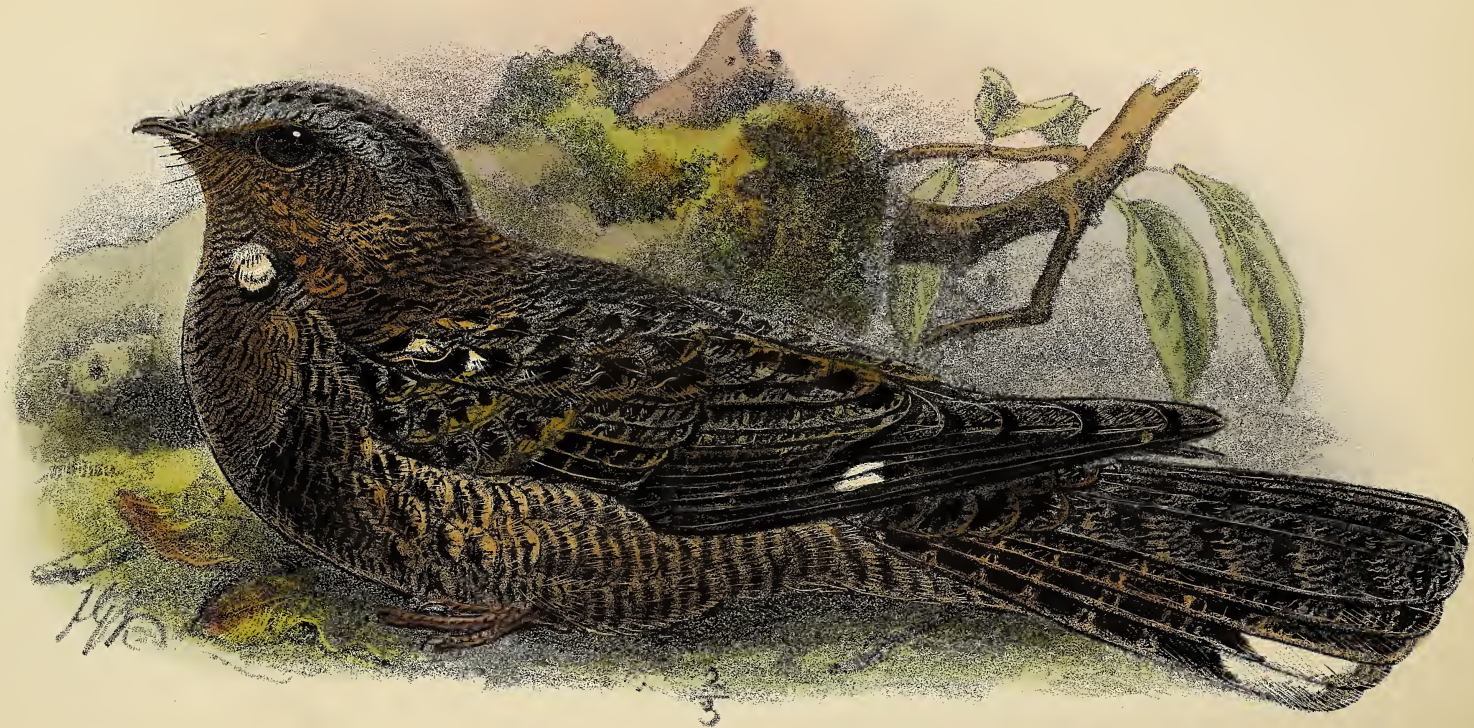
The young birds are mostly black, the brighter colours of the adults appearing but slightly. The females differ from the males only in the blue of the hind-neck being less extensive.

872. MEROPS ALBICOLLIS. [Nso'olong.]

Sharpe, Ibis, 1904, p. 611.

Aerops albicollis Reich. V. A. ii. p. 317.

This bird is surely a *Merops* in its way of life. When I wrote my first note about it ('Ibis,' 1905, p. 91) I knew it mostly near the coast, where it is not so abundant as it is on the Ja. But even at the latter place, as also nearer the



West, Newman imp.

CAPRIMULGUS BATESI.

coast, it appears only in the winter months of the north and does not breed. These birds, from their beauty and the grace of their movements, always arrest attention, and the occupation I was engaged in would have to be very absorbing indeed that I would not stop to watch a flock of these Bee-eaters. Their first appearance in November is an event of the season.

They not only fly together during the day, but roost in flocks, in certain trees, at night. Just before their departure in the spring, especially, they gather in very large flocks, which may be seen going to their roosting-trees at evening, repeatedly flying away with a loud twittering, and circling back to the trees again.

I saw the last of them about the first of April last year, and the year before about the same time. I think that they must breed on the banks of the rivers to the north. By November, as I understand, the dry season has set in there, and the means of life (that is, the supply of insects) may be lessened by the drought. In April it rains again there, and they go back. They are not influenced in these movements by the changes of the season in this country (Southern Kamerun), but rather by the changes in their other home. I have already spoken of the like appearance and disappearance of the Kites, and of the passage of the Egrets (*Bubulcus*) twice a year. These are migrations within the Ethiopian region.

CAPRIMULGUS BATESI. (Plate I.) [Mvômvôt.]

Caprimulgus batesi Sharpe, Ibis, 1907, p. 432.

No. 2937. ♀ ad. Bitye, R. Ja, March 7, 1908. Sex-organs and skin of abdomen as of a sitting bird.

Though I have once or twice observed this Goatsucker hawking for insects at dusk, it is usually seen in the daytime, when scared up from the ground, where it may have been sitting on its one egg, in the edge of a garden or plantation. Sometimes the natives have sharp enough eyes to see it before it flies up, and have secured my specimens for me. Several eggs were brought to me, but always

without the bird, till a man shot the bird numbered 2937 and secured its egg. That all the Nightjar's eggs I have obtained at Bitye belong to this species I feel sure, as no other species has been found there except as a temporary visitor. I am sure that this is the case with the *Cosmetornis* that I got, and the European Nightjar certainly could not have laid these eggs.

Never more than one egg is found in a place. The egg that was accompanied by the bird measured 33×24 mm. The others varied in length from 31.5 to 34.5 mm., and in breadth from 24 to 25 mm.

[Five eggs are of a perfectly oval form and somewhat glossy. The ground-colour is white or very delicate pubescent-white. In four specimens the markings, which consist of brown and pale lavender-grey blotches, are distributed over the entire shell; in a fifth specimen almost all the brown markings are concentrated into a cap at one end, while over the remaining part of the shell there are a few small blotches of pale lavender-grey and a few very small spots of brown.—O.-G.]

902 a. *CAPRIMULGUS SHARPII* Alexander. [Mvômvét.]
Sharpe, Ibis, 1907, p. 433.

Caprimulgus trimaculatus sharpei Reich. V. A. ii. p. 358.

My single specimen of this Nightjar was shot in the neighbourhood of a great bare rock several acres in extent, such as are found here and there in the forest. It was the same spot—a place I pass on the road to Bitye—where I shot the only specimen of *Ædicnemus senegalensis* that I have ever seen ('The Ibis,' 1907, p. 423). That the rocky locality was significant for the Nightjar first occurred to me when I read in Boyd Alexander's book ('From the Niger to the Nile,' ii. p. 22) that he found the same or a closely allied species right across from the Gold Coast Hinterland to the Ubangai region, always in rocky places.

916. *COSMETORNIS VEXILLARIUS*.

Sharpe, Ibis, 1907, p. 432.

My three specimens of this Nightjar were shot within a few days of one another, and were males without their long

plumes. I was surprised when I saw Dr. Sharpe's paper to find what they were. The natives about Bitye certainly know nothing of the remarkable plumage of the breeding males. My specimens were shot in March, just at the end of the dry season and only in 1906; the bird has not been seen again. I think some of them must have been in that neighbourhood on a temporary sojourn, perhaps driven by the dry weather from the region further north or north-east. According to a trader, who had been in Bertua, far to the north-east of Bitye, where there is little forest, this bird lives and breeds there.

934. CHÆTURA SABINII.

No. 2511. ♂. Bitye, May 15, 1907. Testes large. Iris brown; feet bluish.

This specimen was caught alive by a man who said that it and another one flew into his house! Some white-rumped Swifts have been several times seen coursing in the air, and were doubtless of the same species.

966. HIRUNDO GORDONI. [Ngomeko.]

Sharpe, Ibis, 1907, p. 444.

A note on this Swallow has already been published ('Ibis,' 1905, p. 467). Birds of this species are seen oftener than anywhere else about deserted village sites, especially those along the road to the coast. Here there is not enough stir of human life to scare them away, and yet there is the open space and the bare ground that they like. On a trip to Ebolwoa in December 1906, I saw two of these Swallows fly close over the bare ground of such a place, and perch on a plantain along the path. Then one of them was heard to *sing*, uttering a trill in a low, but very sweet voice, its throat swelling much at each utterance. This it repeated and continued to do so as long as I stood and watched. Its mate was perched not more than three feet away.

971. HIRUNDO NIGRITA.

Specimens of this Swallow were shot on the water of the River Ja, or the small River Libi, where it joins the Ja,

where I went camping for a few days. (The village of Bitye is ten or fifteen miles from the Ja.) Swallows of this species were often seen during the four days passed in this camp, perched on snags or projecting dead branches over the water, or skimming over the surface of the river. They were never seen away from the water for a moment, and could only be obtained by fishing them out of the river after they were shot.

977. *PSALIDOPROCNE NITENS*. [Nguleyebe, or Nguleyem.]
Sharpe, *Ibis*, 1907, p. 444.

No. 2642. ♀. Akok (between Efulen and Kribi), July 18, 1907.

No. 2872. ♀. Bitye, R. Ja, Jan. 20, 1908.

The last is the first specimen of this species obtained at the Ja, where the common species of *Psalidoprocne* is *P. petiti*. I had supposed that *P. petiti* was the only species at the Ja, and *P. nitens* the only one near the coast. But my getting this specimen, and likewise seeing *P. petiti*, which is easily distinguished from the other by its forked tail, along the road more than halfway from Bitye to the coast, shews that the territories of the two species overlap.

Both the specimens recorded above were sitting birds, dug out of their holes in banks of streams. (See note in 'The *Ibis*,' 1907, p. 445.) In the hole dug out at Bitye were two eggs (which got broken) lying on a nest or a bed of the *Usnea* or "beard of trees." In the hole at Akok, which was near the top of a bank of loose clay, some four or five feet above the stream, and extended into the bank a foot and a half, enlarged as it penetrated in, was an ample nest of moss and *Usnea*, with two eggs. These both measured the same—19 × 13 mm.

[One egg of a rather long, pointed oval form, slightly glossy and uniform white.—O.-G.]

In my former note I spoke of two of these birds visiting my house at Efulen, looking for a nesting-place. I have lately seen a much more remarkable though similar action. While sitting in the house of a missionary at Ebolwoa,

halfway from the Ja to the coast, on my way to England last April, a pair of *Psalidoprocne nitens* (known by their square tails) entered and perched on a paper ornament hanging from the ceiling. Mr. Hope, who lives in the house, said that they had done this often during several days, and had brought mud and tried to stick it to the ceiling, which is covered with cloth, but the mud would not stick. This is all the more remarkable, since the usual breeding-place of the species is in holes dug in banks, and not in mud nests of their own building.

1000. FRASERIA OCREATA.

Sharpe, Ibis, 1908, p. 328.

No. 2613. ♂ ad. Akok, between Efulen and Kribi, July 10, 1907.

In my brief note on this bird (*l. c.*) I said "I have been told it has a song." I had been correctly informed. When on my collecting-trip to Akok, between Efulen and the coast, in July, one day about noon a bird-song of rare sweetness and variety was heard in the tree-tops over the camp. It was a surprising performance, and both I and my boys were soon looking to see the bird from which it came. We found it at length and followed it from tree to tree, as it went, continually singing in an excited manner. The song was made up of a great variety of notes, some imitating the call-notes of other birds (such as *Dicrurus atripennis* and *Bias musicus*). Mingled in its song were also the buzzing call-notes that I already knew well as those of *Fraseria ocreata*. Soon another bird of the same kind, singing in the same way, was heard near by. It was shot, and its skin is No. 2613. But I had already seen the first one plainly enough to be sure that it belonged to this species.

This song struck me as resembling that of *Lanius macinnoni*. It is characteristic of a Shrike to sing only occasionally, and then with surprising sweetness. Reichenow puts this genus among the Flycatchers.

1016 a. *ALSEONAX EPULATUS FANTISIENSIS*. [Kula, or Okulebe.]

Alseonax fantesiensis Sharpe, Ibis, 1907, p. 445.

No. 2330. ♂. Biteye, R. Ja, March 11, 1907. Testes large. Feet dark; mandible dark-tipped.

This specimen is recorded here because it was brought to me along with its nest, in which were two very young birds. These the boy said were being fed when he shot the parent with his bow and arrow. The nest was peculiar in that it was large and bulky for so small a bird, though the inside was a small cup lined with fine fibres, very much like the nests of *Tchitre*a and other common Flycatchers. But the outside part was a mass of dried moss, leaves, tiny sticks, and lichens, loosely piled, but held together by cobwebs running through it. The nestlings were naked except for some tufts of long brown down.

Dr. Sharpe is certainly right in saying that this form is distinct from *Alseonax epulatus*, with its yellow feet and mandible, though they are both found at the Ja, as well as about Efulen.

1024 a. *PÆDILORHYNCHUS STUHLMANNI CAMERUNENSIS*. [Kula.]

Sharpe, Ibis, 1907, p. 447.

In my note in 'The Ibis' (*l. c.*) I spoke of the eggs of this bird found in old Weavers' nests. I have to record two eggs again found in the old nest of *Heterhyphantes nigricollis*, which had been supplied with a new lining of dry grass-blades or shreds of palm-leaf. These eggs measured the same as the former, 20.5 × 13 mm. I am glad to be able to give Mr. Grant's description, as my statement of the colour of the eggs in the former note may have been wide of the mark.

[Four eggs are of a long, slightly pointed oval form and moderately glossy; three examples are uniform light olive-brown, but the fourth is densely and indistinctly marked all over, especially at the broader end, with yellowish-brown.—O.-G.]

The two young birds Nos. 1555 and 1555 *a*, which are entered under *Alseonax epulatus* in 'The Ibis' (1907, p. 445), had been taken in an old Weaver's nest, and must have been the young of the present species. *Alseonax* does not build in such places. If they had belonged to *Alseonax* they would surely have shown rufous spots.

SMITHORNIS CAMERUNENSIS. [Nôm-Kup-Mefan, or Mbamezok.]

Sharpe, Ibis, 1907, p. 451.

This note is additional to the former ('Ibis,' 1907, p. 451). I wish I could say now whether the peculiar rattling noise made by these birds is produced "mechanically," by which I mean in some other way than by the voice, or not. But I know no more than I did, except that I have many times watched these birds making it, as one can do by patiently and carefully creeping up into the thicket where the noise is heard; and I have always observed that the sound begins and ends with the little circuit-flight from the twig, and is never heard when the bird is not flying, and that on the short circuit-flight the wings seem to be moved much more rapidly than is necessary for the distance of a few feet.

The nest has been described, though it should not have been called "little," and the long streamers from it were not mentioned. Others have since been found, and in two of them the sitting birds were caught—both females and each with two eggs under her. The two of these eggs which were whole, one from each nest, measured 23×15.5 mm. and 24.5×16 mm.

[Three eggs are of a rather long and pointed oval form, distinctly glossy and pure white.—O.-G.]

SMITHORNIS ZENKERI Reich. [Mbamezok.]

Sharpe, Ibis, 1907, p. 452; Reich. V. A. ii. p. 724.

No. 2942. ♀. Bitye, R. Ja, March 9, 1908. Abdomen and breeding-organs indicating a sitting bird.

This specimen is here recorded because it was shot just after leaving its nest, and the nest and eggs were brought to

me. This nest, which was found on a bush in the forest, just such a situation as that of the one already mentioned in 'The Ibis' (1905, p. 95), was similar to it. It was merely a large bunch of fresh moss hung from a twig, with a nest built inside of it, composed of dry leaves and stems and the black fibres so often seen in forest-nests. The two eggs measured 23.5×17 mm. and 25×17.5 mm.

[Two eggs are similar to those of *S. camerunensis*.—O.-G.]

1071. *ELMINIA LONGICAUDA*.

Sharpe, *Ibis*, 1907, p. 456.

I have to add to my note on this bird—'Ibis' (*l. c.*), in which its nest was described—the discovery of another nest, similar to the former. It was found also in June, and contained two eggs, measuring 16×12.5 mm.

[Two eggs of this species are of a slightly pointed oval shape and devoid of gloss. The ground-colour is white, thickly mottled and clouded in a wide zone round the larger end with lilac-grey and greenish grey.—O.-G.]

1083. *TCHITREA VIRIDIS* (Müll.). [Abelebele.]

Sharpe, *Ibis*, 1907, p. 454.

I have to add to my note in 'The Ibis' (*l. c.*) that other nests with eggs have been found, on which the bird has been either caught or shot. These nests are all neat little cups, which differ from those of the two forest-species of *Tchitrea* in having no moss in their bases. The eggs were in every case two in number. They measure: length 18–19 mm., breadth 14 mm.

[Five eggs are of a rather short, somewhat pointed oval shape and devoid of gloss; the ground-colour is creamy-white spotted with light red and lilac-red, the markings being chiefly confined to a ring round the larger end, though a greater or less number of separate spots are scattered over the rest of the shell. In one specimen the markings round the zone are very indistinct and are wanting on the rest of the shell.—O.-G.]

1084. *TCHITREA RUFOCINEREA*. [Abelebele.]

Sharpe, Ibis, 1907, p. 456.

In this case also I have merely to add to my former note the discovery of another nest with eggs, which this time I saved, though broken. They were taken in the nest, on which a male with large breeding-organs was shot. Three birds of this species have now been shot sitting on their nests, and two of them were males.

[Two broken fragments of eggs of this species closely resemble the eggs of *T. viridis*, but the markings are altogether smaller, those round the larger end taking more the form of spots of dark chocolate-brown and lilac-grey.—O.-G.]

1118. *SIGMODUS RUFIVENTRIS*.

Sharpe, Ibis, 1908, p. 328.

The birds of this genus have a strange appearance, which is heightened by the yellow iris; and have also strange ways. They go about in bands of half a dozen, flitting, one at a time, from one tree-top to another; they have peculiar cries, and make a loud snapping noise, which sounds as if made with the bill. They shew little fear and are easy to shoot. They are not common, and as they always attract attention when seen and are remembered as peculiar, I believe I can count up the times that I have seen them. Sometimes they have been met with in the big forest, sometimes in the second-growth trees, but never very near a village.

1126 c. *POMATORHYNCHUS AUSTRALIS FRATER*. [Nko'o-Bikôtôk.]

Sharpe, Ibis, 1908, p. 335.

This is one of the commonest birds in the "bikôtôk" or old overgrown clearings, and even in the cassava-fields; it is never found in the forest. Like all the common Shrikes of this country it is a bird of a conjugal disposition and is often seen in pairs. When mating it (probably the male only) utters a sort of song, which may be said to begin with a trill or rattle, and end with "keow! keow! keow!" all in a rich pleasant tone of voice. I have heard it also, while flying from bush to bush, make a sharp whip-snapping sound,

apparently with its wings, like that made by the little Flycatchers *Diaphorophya* and *Platystira*. This noise is made only occasionally, and seems to be, like the song, an expression of amorous feelings, or made to attract attention.

This Shrike shares with *Laniarius luehderi* the same native name, and both are common birds of the "bikôtôk," though their calls and actions are different (see 'The Ibis,' 1908, p. 330). But the *Laniarius* hides its nest in some place where it cannot be found, while I have come across several of the *Pomatorhynchus*. One, on which the bird was caught, sitting on two eggs, was the only one where I got the bird and at the same time saved the eggs. The nest, like other nests I have seen of this bird, was a very shallow cup of dry leaf-petioles, grass and other stems, the finer ones inside. It was rather slight and thin. One I found myself was set on the forks of a cassava-stem. In my notebook I have described the markings on these eggs (the two I saved) as being like a lot of *punctuation marks* of print—commas, hyphens, brackets, &c.—jumbled together. The size of these eggs was 24 × 17 mm.

[The two eggs are of a regular or slightly pointed oval form and very slightly glossy. The ground-colour is pure white, rather sparingly marked, especially round the larger end, with small blotches and irregularly shaped spots and lines of brown and various shades of grey.—O.-G.]

1134. NICATOR CHLORIS. [Ekong, or Ntyong.]

Sharpe, Ibis, 1908, p. 334.

This bird lives in the borders of the forest, or among the higher trees of the second-growth, and generally keeps itself well hidden, for when it comes to the light its spotted wings make it conspicuous. The only sound ordinarily heard is a scolding noise, which is imitated in the explosive nasal sounds of the Bulu names. But on one occasion I watched it sing a song, in a loud clear tone, consisting of quite a variety of notes, some so much run together as to remind me of the peculiar trill of the *Pomatorhynchus*. The song was uttered languidly, a few notes at a time.

No. 1999 was a sitting female, shot with bow and arrow on its nest. This fabric was a "poor excuse" for a nest—a mere pad of dry tendrils and weed-stalks mixed together, so small that the bird would completely cover and hide it. There was a little depression on the top, where the one egg had been laid. The egg reached me broken, along with a tiny nestling just emerged from the shell.

[A broken egg, apparently of a rather blunt oval shape and very slightly glossy. The ground-colour is pale yellowish-clay colour, rather densely spotted all over, especially round the larger end, where the under-markings form an irregular clouded zone, with small spots and dots of dull reddish-brown and dark grey.—O.-G.]

1136. *Nicator vireo*. [Ekong, or Ntyong.]

Sharpe, *Ibis*, 1908, p. 335.

This smaller green Shrike, which I found only at the Ja, is not so shy as its larger relative, and its loud and pleasing song is very frequently heard. This song is one of the most striking sounds of the bird-world in that district. It may be likened to a bugle-call of half-a-dozen notes, mostly in one tone, but with one or two towards the end in a higher pitch, the last one or two dropping again to the pitch of the first. It may be heard at almost any time of the day. When singing the bird perches amongst the foliage of some tree, usually high and out of sight.

Dryoscopus bocagii.

Sharpe, *Ibis*, 1908, p. 331.

Chlorophoneus bocagei Reich. V. A. ii. p. 557.

It certainly seems fitting, from what I know of this bird in life, to have it placed in the same genus as *D. senegalensis* and *D. tricolor*. I became acquainted with the two latter (which I supposed were one, never suspecting that I had met with two species of these birds) at Efulen, and there learned to know their various calls, which I have since heard them (or one of them) make at Bitye, in the Ja region (see 'The Ibis,' 1908, p. 333). At Bitye I shot several of *D. bocagei* at different times. I found them skulking in the foliage of

trees, in exactly the same manner as the species I had collected at Efulen, and uttering the same calls.

1203. *LANIUS MACKINNONI*. [Asanze, or Asese.]

Fiscus mackinnoni Sharpe, Ibis, 1908, p. 328.

I have a little to add to my note in 'The Ibis' about this bird. Once in a cassava-patch, on a thorn-like twig of some dead bush, I found a partly eaten body of a young bird impaled. That I lay this crime at the door of the Asanze is only because I know that its relatives in other lands are "butcher-birds." But against the evil which I only suspect, I hasten to tell the good that I know of this bird. For, though usually silent and morose, when the right mood comes it is a sweet singer. Its notes are slow and scattering, but varied and sweet, and it introduces clever imitations of other birds. I have thus noted hearing the querulous cry of the Coly and the call of *Pycnonotus gabonensis* mimicked perfectly by this Shrike. Once, while an Asanze was watched singing, its mate was seen to come and perch close beside it, while the singer continued his song.

1235. *DICRURUS ATRIPENNIS*. [Ebondi, or Fa-Beti.]

Sharpe, Ibis, 1908, p. 354.

This is the common forest-Drongo in all localities. In my account of the *éjak*, or company of little birds wandering and feeding together in the forest ('The Ibis,' 1905, p. 462), I named this as nearly always the most conspicuous bird of the *éjak*. On reading, in Mr. Swynnerton's first paper on the Birds of Gazaland, of "the habit of this species [*Dicrurus afer*] of assuming the leadership of the flocks of small birds so often met with" ('The Ibis,' 1907, p. 72), it struck me that my "*éjak*" was something similar to what was mentioned there. It never occurred to me that the *Dicrurus* here in Kamerun was the leader of the *éjak* in any other sense than being the noisiest bird in it, the continual calling of which served to keep the company together, just as the gruff barking of a "father" monkey keeps a troop of monkeys together among the tree-tops.

1237. *DICRURUS SHARPII* Oust. [Fa-Beti.]

Sharpe, Ibis, 1908, p. 355.

This smaller Drongo I never found about Efulen. In my former note I said that "perhaps it does not venture out into the depths of the forest, where *D. atripennis* is at home." A longer acquaintance inclines me to modify this only by striking out the word "perhaps."

A specimen shot just after leaving its nest proved to be a sitting female. The nest was a neatly woven little cup, composed of fine rootlets and stems with some lichens stuck in, and attached or slung, hammock-fashion, to two twigs, hanging between them, with the rim on a level with the twigs. It was held together and to the twigs by gossamer threads. The nest was small for the size of the bird, measuring 55 mm. in width inside. There was one egg in it and no trace of another. It measured 24×15.5 mm.

[One egg of a long, pointed oval form and almost devoid of gloss. The ground-colour is of a pinkish cream-colour, with a very faintly marked zone of indistinct lilac spots round the larger end.—O.-G.]

LAMPROCOLIUS SPLENDIDUS GLAUCOVIRENS. [Kwang.]

Sharpe, Ibis, 1908, p. 357.

The Kwang (the name pronounced in a high explosive tone to imitate the ringing call of the bird) is found in all places where I have collected. It visits trees which bear the fruits that it eats, especially the "aseng" (*Musanga smithii*), wherever they are found, but is more frequently seen in the opener country than in the forest. It perches high, and in this and in its brilliant dress and ringing cries exhibits a sort of proud, or martial, bearing. Besides its usual stirring call, it sometimes utters a loud but sweet piping note, like that of the American Red-winged Blackbird. When it flies it makes a rushing sound with the wings; and it does not do so only occasionally and voluntarily, but always. The Kwang are inclined to gather together in flocks to feed, and sometimes collect in large companies to go to roost. But I have seen such flocks seldom. I once had a notion that

these birds go away at certain seasons, but find this to be a mistake.

No. 2693, a sitting female of this species, was caught by a boy in its hole one evening in August. The hole was described as a large knot-hole in a living tree, only a few feet from the ground, but in a marsh (“éngas”—see under *Centropus monachus* above, p. 13). The boy brought a rough, flat nest, composed entirely of leaf-petioles, which he said he took from the bottom of the hollow, and two eggs; these measured 31·5 × 24·5 mm. and 31 × 24 mm.

[Two eggs are of a regular oval shape and almost devoid of gloss, the whole shell being somewhat rough to touch and slightly pitted. The ground-colour is pale greenish-blue, sparingly marked all over with spots and blotches of pale reddish-brown and lilac-grey.—O.-G.]

1264. LAMPROCOLIUS PURPUREICEPS Verr. [Kwang-Metôndô.]

Sharpe, Ibis, 1908, p. 356.

This species is called in Bulu from the name of the small tree on the fruit of which it is fond of feeding. It is a rather retiring and quiet bird, never seen in numbers except in the wild fruit-trees where it feeds, and seldom using its voice, though I have heard it make what seemed a feeble imitation of the clanging call of its larger and more conspicuous relative.

One day in June, near Efulen, I saw two of these birds repeatedly enter a high knot-hole, coming every time from the limb of a large tree, where there may have been lichens or moss; they were evidently building. I shot one (I am almost ashamed to say) and it proved to be a breeding male (No. 819). Two days after two more birds were seen to enter the same hole, and one was seen to have a little stick in its bill. Had the female whom my shot left a widow got another mate so soon?

1287. PŒOPTERA LUGUBRIS. [Mboyôm.]

Sharpe, Ibis, 1908, p. 356.

These birds are most frequently seen in flocks of about

two dozen. They have not often been heard to use their voices, but I have detected faint little cries, like feeble imitations of the ringing "kwang" of the chief of their family. Their quick flight in perfect unison, with their long tails all pointing the same way, reminded me of a lot of little fishes darting in a clear stream.

The boy who shot my last two specimens, a breeding male and a breeding female, said that there were a number of them about a dead tree-trunk that had holes in it, like the holes of the Ovôl (*Gymnobucco*).

They eat the same fruits as the other Starlings. The colour of the iris is bright yellow.

1312. *MALIMBUS NITENS*. [Nga'a-minkan.]

Sharpe, *Ibis*, 1908, p. 352.

In the great forest, which reaches its fullest development in the hilly country around Efulen, the path of the hunter often leads him over the pebbly bed of a stream, where he wades through the clear water and dodges the overhanging branches and vines. Attached to these overhanging branches, not much higher than his head over the water of the brook, he often sees Weavers' nests, in size and structure much like those of the common village *Hyphantornis*, but woven of different materials—long rootlets or runners, such as would be found in the forest. These are the nests of *Malimbus nitens*. They are nearly always empty, for the builders never seem to use them but once, and are always seeking some new and more retired spot. There is never more than one nest in a place. The only egg I ever found has already been described ('*Ibis*,' 1908, p. 352).

1313. *MALIMBUS CASSINI*. [Nga'a-minkan.]

Sharpe, *Ibis*, 1908, p. 352.

No. 1049. ♀ ad. In '*The Ibis*' (*l.c.*) this specimen has been put under *Melanopteryx nigerrimus*. Though the plumage is perfectly black, the bird differs from the adult male of *Melanopteryx nigerrimus* in the following particulars:—Bill slenderer and at the same time shorter (culmen 15·5 mm.), in *Melanopteryx nigerrimus* the culmen is never less than

18 mm.; culmen ridged and narrow, while that of *M. nigerrimus* is rounded and broad; smooth at base, while in every one of the score of specimens of *M. nigerrimus* examined the culmen is crossed near the base by wave-like wrinkles. Feet smaller and darker in colour than in *M. nigerrimus*. Besides, this is a female bird, and only the male of *M. nigerrimus* is black. And this bird was certainly the mate of No. 1048, a male *Malimbus cassini*, reported in 'The Ibis' (*l. s. c.*).

Nos. 1048 and 1049 were both shot by myself at their nest in the forest, high up in a *Calamus* or vine-palm. To quote from my notebook:—"The nest was in plain sight, but not conspicuous, because of its resemblance to the dry fronds of the palm. The long entrance pointed diagonally downwards, and its walls were so thin as to be transparent, so that the birds could be seen through it entering and leaving. The two birds were coming and going, as if feeding their young. The perfectly black specimen (No. 1049) was shot first, and the other when it returned, ten or fifteen minutes later. We could not get the nest." I well remember the gallant efforts the two little boys with me made to climb the surrounding trees and so to reach the nest, for a vine-palm, with its stem thickly set with long prickles, is unclimbable. After giving that up we all tried to haul down the vine, but it was too firmly anchored to the surrounding tree-tops by the strong barbs on the tips of its fronds. The birds' castle was impregnable, as it certainly would have been, also, to predatory beasts and snakes. So far as I remember, the tubular entrance to this nest was two or three feet long. The nest seemed to be woven of narrow shreds torn from the leaves of the palm. Though the weaving was open, with many interstices, it seemed to be neat.

No. 1538, ♀ (culmen 15.5 mm.), is exactly like No. 1049.

No. 2515, ♀ (culmen 16.5 mm.), is exactly like No. 1049. My boy brought in along with this No. 2514, another male *Malimbus cassini* reported in 'The Ibis' (*l. c.*), and said that he had shot the two together.

This seems to be the first discovery of the female of *Malimbus cassini*, and also the first *Malimbus* that is entirely

black in both sexes. In other species of the genus the females have more black than the males.

MALIMBUS CORONATUS. [Nga'a-minkan.]

Sharpe, Ibis, 1908, p. 352, pl. vii.

No. 1865. ♀. This specimen is another perfectly black female, which was previously entered under *Melanopteryx nigerrimus* ('The Ibis,' 1908, p. 350). It is exactly like No. 1049, and if I am right in considering it the female of the present species, *M. cassini* and *M. coronatus* have the females just alike. The evidence for naming it as I have done is less conclusive than in the case of No. 1049. I believe No. 1865 to have been the mate of No. 1864, the type of Dr. Sharpe's *Malimbus coronatus*; but I did not shoot the pair myself. The boy who brought them to me said that he shot the two at their nest, and he brought the nest along to shew me. I do not believe that he was either deceiving me or mistaken.

The nest which the boy brought was quite different from that of *M. cassini* described above, being large, but with the entrance only six inches long, and was woven mostly of tendrils, with the ends bristling out, giving it a rough appearance.

1315. MALIMBUS MALIMBICUS. [Nga'a-minkan.]

Sharpe, Ibis, 1908, p. 351.

This red-crested species is perhaps the commonest member of this interesting genus of Ploceidæ, in which the bright red colours blossoming out at some part of their ebony plumage remind one of the surprisingly bright flowers sometimes seen on the black forest tree-trunks; both flowers and birds are characteristic of the great forest.

No. 1625 was shot (by myself) near its nest, from which it had just come out. The nest was hung from the long thorny rachis of a *Calamus*, or climbing palm, about 20 feet from the ground. It was in plain sight, but protected by its position on the long, swaying, thorny leaf-stalk. This nest was more roughly built than that of *Malimbus cassini*, and the downward-pointing opening was short and ragged. The material seemed to be strips of the leaves of the palm on which it was hung.

The Bulu name of all species of *Malimbus* means "Weaver of the vine-palms," from the favourite nesting-place of many of them.

1329. *PLOCEUS BICOLOR*.

Reich. V. A. iii. p. 34.

Sycobrotus bicolor Sharpe, Ibis, 1908, p. 349.

A common inhabitant of the smaller sort of second-growth forest that springs up on land once cleared and then left for a few years—a sort of forest found very extensively in the Ja district. The bird was never seen at Efulen, where the primeval forest prevails. It seeks its insect-food in the tree-tops or the under bushes and brush, in the dry season making a great rattling among the dry leaves of the underbrush when foraging. Sometimes I have thought, from the beating and rattling noise I heard, that some antelope or pig must be walking about in a thicket, but have found nothing but one of these yellow birds. This species has a little song of a high pitch, ending in a long drawn out "chee-e-e!" which sounds rather sweet. This it is continually singing. A male not breeding has been shot while uttering the little song; and two female specimens, if my boys, who shot them, may be believed, were also singing when shot.

Many of my specimens have been shot at their nests. The pair (Nos. 1562 and 1563) were killed at one shot, one being inside the nest and the other perched at the entrance. The nest is of the ordinary Weaver shape, *i. e.* a globe with a downward-pointing entrance or vestibule on one side, the latter short, not a long tube as in nests of some kinds of *Malimbus*. It is woven of small weed-stems and tendrils, and is rather bulky and rough. Nests of this bird are most frequently found in a kind of small thorny tree called "bôngô." Probably the thorns or prickles, which thickly cover the twigs or leaf-petioles to which the nests are attached, afford protection against marauders.

The eggs, when found in the nests, were two in number, and two that I saved measured 20.5 × 14.5 mm. and 20 × 14 mm.

[Two eggs are of a rather pointed oval shape and pure white.—O.-G.]

1335. PLOCEUS DORSO-MACULATUS.

Phormoplectes dorsomaculatus Sharpe, Ibis, 1908, p. 349.

The specimens of this bird were all obtained recently around Bitye, killed by my boys. They seem to have been found in such places as the last species (*Ploceus bicolor*), and to eat the same sort of food, mostly insects. No. 2438 was killed along with its young, No. 2439, in a curious manner. The boy caught the young one first and tied a string to its foot, and held it thus tethered while he hid himself and waited. The old bird (the father, not the mother) came "with a fruit in its mouth" to give the young one, when the boy killed it with a stick. The "fruit" was probably a spider, a leg of which I found in the bird's mouth.

1346. PLOCEUS NIGRICOLLIS. [Ngas.]

Heterophantes nigricollis Sharpe, Ibis, 1908, p. 348.

This is one of the commonest birds in clearings and in small second-growth bushes in every place where I have collected. But though common it is rather silent and retiring. In my note which was published in 'The Ibis' (1908, p. 349), but was written two or three years ago, in saying that it "makes a great rustling of leaves," I had confused *Ploceus bicolor* with this bird. Then I had likewise not learned to distinguish the nests of the two species, and the words "with a very short entrance and somewhat roughly made" apply better to nests of *Sycobrotus bicolor*. The nests of the "Ngas" are somewhat smaller, have the entrance or vestibule a little longer, and are a little better woven and of finer materials—fine weed or grass-stems, although in general the nests of the two species look alike. "Ngas's" nests are found very often—generally old and deserted ones—hanging on bushes, not on trees. Other smaller birds, or at least the little Flycatcher *Pædilorhynchus camerunensis*, use these second-hand nests to breed in, so that eggs found in a Ngas's nest are not always eggs of the Ngas.

But I have found undoubted eggs of the Ngas; never more than two in a nest. Measurements of seven such eggs vary but little, 20–22 mm. in length by 14–15 mm. in breadth.

[Nine eggs are of a long, rather pointed oval shape, and possess a certain amount of gloss. They present three types of coloration, viz. : pure white; pale bluish-green, finely and rather sparingly freckled all over with lilac-grey and umber-brown; and pale pinkish-white, thickly freckled all over with light red and pale lavender-grey.—O.-G.]

1359. *PLOCEUS CUCULLATUS*. [Nga'a (pl. Benga'a).]

Hyphantornis cucullatus Sharpe, Ibis, 1908, p. 348.

These Weavers follow man in all his migrations in this country as inevitably as do rats and sparrows. No sooner is a clearing made and stakes set in the ground for a new village than "Benga'a" begin to build in the nearest tree. A plantain or a palm-tree is chosen by preference, as furnishing not only a site but material close to hand for the nests; but any kind of tree will do. The more populous the village and the greater the hubbub of village life, the better are the birds pleased, adding to the noise their own shrill chatter. This strange predilection for public and noisy places, so contrary to the instinct of most birds, is not hard to account for, since these birds thus incidentally obtain man's protection against birds and beasts of prey. No place is so safe from hawks and snakes as the village street. Though boys kill a good many Benga'a, especially at planting-time, when they pull up the young shoots of corn as soon as they appear above ground, in order to get the sprouting grain beneath, yet the number killed by man does not seem to affect the population of the colonies. Killing numbers of them will not frighten them away, and tearing down their nests only makes them build the more furiously. They have a perfect mania for building, and when not building new nests are all the time repairing the old ones. They often destroy palm-trees by stripping them bare of their leaves.

One day I watched a boy pull down the Benga'a's nests

from a palm-tree by means of a long "bamboo" (really it was a palm-stalk) with a loop on the end. I made the following note:—"Not an hour after the nests were torn down the birds were busy building again. A few old shells of nests the boy had left untouched, and the birds set to work to repair these. Both males and females were busy at it, though the latter worked so quietly that they were scarcely noticed at first. They seemed to find some difficulty in tearing off the tough leaves of the palm where the nests were, so, giving these up, they went to neighbouring plantations, where the leaves were much tenderer. One was seen to bring a ribbon of plantain-leaf nearly an inch wide, and enter an old nest with it. After the bird had been inside a few seconds, a loop of the ribbon was seen to emerge from the side of the nest. . . . The very beginning of a new nest was seen also. It consisted of a wreath of strips woven together between two separated palm-leaflets, with the rhachis of the frond for one side." Thus the birds began with the part of the nest that was attached to the palm-frond, and from this circle they would weave the body or sack of the nest on one side and the vestibule on the other." This is doubtless the way in which the nests of all the larger Weavers are constructed.

It is the males of the Nga'a that utter the incessant shrill chattering song, doing so usually while supporting themselves, partly by holding on with their feet and partly by fluttering the wings, at the entrance to the nest.

Two eggs are found in a nest. They vary much in colour and markings, but, so far as I have yet seen, both eggs of the same nest are alike. Three eggs that I have saved, from three separate nests, shewing variations in markings and colour, agree remarkably in size, each measuring 25×16 mm.

[Three eggs are of elongate oval form and are very slightly glossed. They are of three types, viz.: pure white; bluish-green, sparingly marked all over with spots of umber-brown and blotches of lilac-grey, some of which are very pale; and lastly white, marked rather sparingly all over with small spots of dull maroon and pale grey.—O.-G.]

1350. MELANOPTERYX NIGERRIMUS. [Eyelesô, or Evindi Nga'a.]

Sharpe, *Ibis*, 1908, p. 350.

Ploceus nigerrimus Reich. V. A. iii. p. 50.

The note already published ('*Ibis*,' 1908, p. 350) gives in a few words nearly all that I can say of the habits of these birds. The Bulu often call them by the same name as *Hyphantornis cucullatus*, or "Nga'a," and for distinction "Evindi" (*i. e.* "black") "Nga'a." The reason for applying to two birds of such different appearance the same name is evident when one knows their habits. The two species not only build nests exactly alike and in the same situations, but often mingle their nests together in the same colony. Moreover, the females and the young males of the two are much alike, and the two species live on the same farinaceous food, and have muscular stomachs or gizzards, while the other Weavers of the same size found here live mostly on insects. While the other Weavers build solitary nests, a pair in a place in an inconspicuous situation, and never go about in flocks, the present species, like *Hyphantornis cucullatus*, is seldom seen except in flocks, and builds in colonies in conspicuous places about villages. From seeing these birds in life it would seem natural to me to put them and *Hyphantornis* in the same genus, as the Bulu do, and not in the same genus with *Sycobrotus*, &c.

No. 2000. Imm., sex? Bitye, R. Ja, Oct. 25, 1906. Stomach full of insect bits.

No. 2349. ♀ ad. Bitye, March 17, 1907. Small ova in ovary. Stomach not muscular, containing black scales. Iris whitish; feet dark (not quite black). Length of culmen 18 mm.

No. 2411. ♂ imm. Bitye, March 30, 1907. Stomach (non-muscular) containing insect bits. Iris yellowish white.

Nos. 2829, 2830. ♂ ♀ ad. Bitye, Oct. 29, 1907. Both shot by a boy "in éjak." The stomachs of both contained insect bits, mainly grasshoppers. Both had the iris whitish, and the feet dark or black. Length of culmen of male 18 mm., of female 16 mm.

No. 2834. ♂ imm. Bitye, Oct. 31, 1907. Stomach containing hard dry seeds and bits of some large insect. Iris whitish; feet dark. Length of culmen 17 mm. This bird is greyish and moulting, the new feathers being black.

The first three of these birds were put under *Melanopteryx nigerrimus* in a previous paper ('The Ibis,' 1908, p. 350); the other three have been collected since the lot reported on in Dr. Sharpe's paper.

These birds, of which the adults are perfectly black and the young dark grey, differ from the black adult males of *Melanopteryx nigerrimus* as follows:—(a) In the colour of the iris, which in that bird is conspicuously yellow, while in these it is conspicuously whitish. This is the point that I first noticed, and is what led me to note other points of difference. (b) The feet of all six birds are dark or black; those of *M. nigerrimus* flesh-coloured and also larger. (c) The culmen is ridged and narrow in these birds; the pits for the nostrils are also very large. (d) Some of them are females, which in *Melanopteryx* would not be black. (e) These birds have non-muscular stomachs and seem to live largely on insects.

These birds differ also from the perfectly black females of *Malimbus* that I have found:—(a) In the whitish iris—in *Malimbus* it is brown, so far as I have noted, and my attention was particularly drawn to that point; (b) in the longer bills—note measurements above; (c) in that some of them are males.

I make this note of these six specimens to call attention to them. They do not seem to belong to any species that I know. I do not even know what genus to put them in, for they have no red in their plumage, not even the males, and so cannot go into *Malimbus*; and they are debarred from *Melanopteryx* by the fact that the males and females are alike. Perhaps they are Alexander's *Melanopteryx maxwelli* from Fernando Po ('The Ibis,' 1903, p. 355).

1354. PLOCEUS FUSCO-CASTANEUS (Boc.).

Cinnamopteryx fusco-castaneus Sharpe, Ibis, 1908, p. 350.

This species seems to belong to the solitary and insect-

eating group of Weavers, and not to be placed naturally so near to *Melanopteryx nigerrimus* as it is in the 'Vögel Afrikas.' Nos. 1854 and 1855 were evidently a pair, shot together, as so many of my specimens of *Malimbus* have been. No. 2626, the young one, was in company with a *Malimbus rubricollis* in an *éjak* in the forest.

AMBLYOSPIZA SATURATA. [Kô-Esông.]

Sharpe, Ibis, 1908, p. 353.

This bird I have found only in the Ja district, and there only in localities where there are extensive patches of the big cane-like grass *Panicum maximum*, or "ésông" in Bulu. The Bulu name of this bird is the name of the grass combined with "kôs," meaning "parrot." The name "parrot" must be given on account of the big bill of these Weavers, or because, when perched, they hold themselves in a peculiar parrot-like erect position, made necessary, apparently, by the weight of their bills. Once, while watching one of these birds thus perched, I saw it open its mouth and heard it sing a pretty little canary-like song, consisting of some "cheeps" ending in a trill.

Though the bird is not very plentiful here, a number of its nests have been found and shown to me, mostly by one man, who seems to have discovered a place where they nest, though they do not, I think, build together in a close colony. The nests are large globes, six inches or more in diameter, attached by one or both sides to stems of the *ésông* grass or to other plant-stems. They are always woven entirely of fine shreds resembling flax both in fibre and in colour. From what plant the bird gets them I do not know, perhaps from the inner stems of the *ésông* also, which the bird could bruise and fray out with its strong bill and then tear off in fine shreds. The weaving is closer and neater than that of most Weavers. In some of the nests the entrance is a mere hole in the side of the globe, and the edges of the hole have a finished look, all ends being tucked in, and a "selvedge edge" formed. Seeing such a nest one would suppose that it was finished, and that this bird builds no vestibule as other Weavers do. But other nests have a

vestibule built down two or three inches from this hole, growing smaller to the lower end, where the opening is not more than 30–35 mm. in diameter, and this vestibule shews traces of several selvedge edges at different heights, as if the bird had more than once intended to “call the job done” and then afterwards added further material.

The number of eggs found in a nest when the clutch seems complete is two or three; when a single egg is found it would probably be followed by one or two more. The eggs in a clutch of three measured 21–22 × 16 mm., but these were shorter than my other specimens, which measured 23–24·5 by 15·5–17 mm.

[The eight eggs vary in shape from a rather blunt to an oblong oval, and are practically devoid of gloss. The ground-colour varies from white or creamy white to pale rufous, and is sparingly marked all over with spots and dots of pale brown, light red, or dull maroon-red, which are more numerous towards the larger end, where they are often more or less concentrated into a zone.—O.-G.]

1421. PYROMELANA FLAMMICEPS. [Kulesô.]

Sharpe, *Ibis*, 1908, p. 343.

I have seen this bird only in the region of the Ja, where it is common, and at the breeding-season very conspicuous. The males change from the plain to the breeding-plumage in July. After that they are often seen, like great flaming red flowers blossoming on the bushes and tall grass of waste ground, for the remaining months of the year. I have seen nests and eggs in September, October, and November. The birds lose their gorgeous dress about January, and pass the following months in plain sparrow-like plumage, males and females looking alike. They go about then in small flocks and attract little attention.

In a recent article in ‘*The Ibis*’ (1908, p. 269) Mr. Ogilvie-Grant reports a bird in Mr. Carruthers’s collection, obtained at Kasongo on the Upper Congo, as having partially assumed the breeding-plumage; the date was in January. With this agrees the statement of Böhm quoted

by Reichenow, that he found eggs at Kakoma from the beginning of April to the end of May. Kakoma, in German East Africa, is in about 6° S. lat., and Kasongo in about 4° S. lat. Thus, if the dates are correct, the times of breeding and changing plumage in this species at my place in W. Africa, a little north of the Equator, are exactly the reverse of those in Central and East Africa, a little south of the Equator.

The breeding males use all means to attract attention. As if their flaming plumage was not enough in itself, they perch on the most prominent bushes and grass-tops, and fly from place to place slowly and with much fluttering of wings, all the while singing their little chattering, but rather sweet, song.

The nests are about the size and something of the shape of those of the Ngas (*Heterophantes nigricollis*). But they are more loosely constructed than those of most Weavers, and have the entrance wide, and its edges with all the ends loose, giving them an unfinished appearance. In this and in the use of many fine grass-tops for the inside or lining of the structure, and more particularly in the fact that the nests are not hung or tied to a twig but merely set in the forks, these birds shew their relationship to the Spermestine division of the family rather than to the Ploceine.

The number of eggs found in a nest is two or three. Five that were measured varied thus: 18-20 × 14-14.5 mm.

[Six eggs of the species are of a somewhat oval form and distinctly glossy. The ground-colour is pale greenish-blue, and is generally very sparingly marked, especially towards the larger end, with rounded spots of purplish-black or deep purplish-lilac.—O.-G.]

1447. SPERMESTES CUCULLATA. [Aseleke.]

Sharpe, Ibis, 1908, p. 345.

With this bird we come to the first species of the tiny Weavers that go about in flocks when not breeding and here form such an interesting part of the bird-world in open grassy places; they all avoid the dark forest. This

particular species I never found at Efulen, but it is common on the Ja, where the open country is more extensive. On my way from the interior down towards Efulen and the coast, at many grassy and reedy places near the streams along the road, I saw little flocks of this species. Perched on grass-stems all around, they would wait till one was almost opposite to them on the path, and then fly up together with the faintest little twittering sounds, and move in perfect unison, like a squad of well-drilled little soldiers with their neat black and brown and white uniforms, to a new station a little further on.

1450. SPERMESTES POENSIS. [Aseleke, or Ejile.]

Sharpe, Ibis, 1908, p. 344.

This species is common in every district where I have been, including the Njiem (or Zima) country down the Ja, though, of course, it is confined strictly to the open village-clearings. Both kinds of Aseleke are caught by boys in snares baited with tender grains of corn.

Nests of these birds are not infrequently found in the tops of the small trees about the villages. A very favourite site is in the thick tree-top formed by the sprouts that grow out from the tall stump left after a tree has been cut down some ten or twelve feet from the ground, as is the common practice near villages, for fear of the wind blowing the tall trees down on the houses. Into such a low and thick tree-top I watched a little *Spermestes poensis* fly repeatedly, each time bearing a long bunch of the grey beard-like *Usneu* that it brought from the limb of a tall old forest tree not far away. It flew with evident effort, for the bunch was much longer than the bird itself. This plant is a favourite building-material of this species. Often the outside of the bulky nest is of this, and the inside, with the tubular entrance, is of fine adhesive and hair-like grass-tops. The nest is shaped like a water-bottle laid on its side, with the mouth and neck horizontal.

Eggs of different species of *Spermestes* and *Estrilda* have been shown me a number of times in the nests, but usually it

is impossible to be certain to which species they belong. In one nest were five nestlings, and in another six, which in both cases were old enough to shew that they were those of *Spermestes poensis*. When the tiny things opened their mouths they displayed bright yellow palates and tongues, with circular black lines running around the inside of the mouth.

1488 e. *ESTRILDA ASTRILD OCCIDENTALIS*. [Zok-Osesang.]
Sharpe, Ibis, 1908, p. 343.

This is another bird which I have found only at the Ja, where there is so much country suitable for these grass-dwelling little Weavers. It is smaller than any of the other species found here, as its body after skinning proves, though measurements of the wing and tail shew no difference from its nearest relatives. It is in joking allusion to its size that the native boys name it "Zok Osesang" ("zok" meaning "elephant").

1496. *ESTRILDA MELPODA*. [Osesang, Osanze, or Ejile.]
Sharpe, Ibis, 1908, p. 344.

This is a common little species both about Efulen and at the Ja, but I have never found its nest—at least a nest that I knew certainly to belong to it. It has been heard on two or three occasions singing a pretty song.

1499. *ESTRILDA ATRICAPILLA*. [Osesang, Osanze, or Ejile.]

Sharpe, Ibis, 1908, p. 343.

This is the most abundant *Estrilda* in every place where I have collected. Two of my specimens (they were not breeding, for the month was March) were caught after dark by boys in an old Ngas's nest (*Heterhyphantes nigricollis*), where they had gone to roost.

Among the numerous nests of Estrildine birds shown to me that were not certainly identified, one nest, and I think two, undoubtedly belonged to this species. A little girl at Efulen found one nest and saw the bird go in; she quickly closed the entrance with her hand and brought me the nest

with the little prisoner in it, besides two eggs. This nest was of the water-bottle shape already described under *Spermestes poensis*, but was composed entirely of fine grass-tops, with no *Usnea*. The girl found it set in the forks of a shrub at about the height of her shoulders from the ground. Another nest at Efulen, which I have good reason to think belonged to *Estrilda atricapilla*, was very curious in that it was double. Above was a water-bottle-shaped nest like that just described, and it was empty. Below was an addition pressed against the main nest like a small growing onion flattened against a larger. The addition had an entrance of its own, and contained five little white eggs. It seemed to be used for breeding-purposes, while the main nest was used merely for a sleeping-place, probably by several birds.

Different reasons make me think that in this and other *Spermestinae* several of the little hen birds lay in the same nest. The five eggs just mentioned were all fresh, and if one bird had laid them all the first would already be somewhat incubated. The nests are extremely large for such small birds, and would probably be built by several in partnership. Five and six (note the six young of *Spermestes poensis* above) is an unusually large number to be the brood of one small bird in this country.

The two eggs brought by the little girl mentioned above measured 13×10 mm. The five eggs from the double nest were just like them, but a trifle longer— $14-14.5$ mm. long by $10-10.5$ broad.

[Five eggs are of a rather long and perfectly oval form, pure white and almost devoid of gloss.—O.-G.]

1539. VIDUA SERENA. [Bendenga-Osesang.]

Sharpe, Ibis, 1908, p. 343.

Though found wherever I have collected much, this Widow-bird is nowhere abundant. Even the breeding males have not been seen very often, and of course the others attract very little attention. Whenever I have seen the plain birds they have been mingled in the flocks of little *Estrildæ*.

The breeding males fly with much jerking of their long

tails—for display, not because of any difficulty in supporting them. Sometimes an individual remains in the air at one spot for some moments, fluttering its wings and waving its tail. While doing this I have heard one make a vigorous twittering noise; another, perched on a dead tree, was heard to sing a few notes that could really be called a song.

These birds have been seen in their breeding-plumage and recorded in June, July, and August, while probably they keep it longer—perhaps for the same months as *Pyromelana*, of which an account was given above.

1545. *PASSER GRISEUS*. [Mvakumba.]

Sharpe, *Ibis*, 1908, p. 342.

The nests of these Sparrows are loose piles of trash, including feathers of fowls. They are placed in all sorts of situations about a village, such as on the ridge-poles of houses under the projecting roofs, and in bunches of plantains and bananas growing behind the dwellings. Two eggs or nestlings are found in a nest. The eggs measure 21×15 mm.

[The eggs are of a rather broad pointed oval shape and slightly glossy. The ground-colour is white or yellowish-white, heavily blotched and spotted over the greater part of the shell with dark lilac-grey and umber-brown. In one egg the grey markings predominate and a good deal of the ground-colour is visible; in the second the brown markings are numerous and cover the greater part of the shell.—O.-G.]

1614. *EMBERIZA CABANISI*.

Sharpe, *Ibis*, 1908, p. 342.

The Bunting of this country sings a well-marked little song—not very pretty, but a song in intention,—which can never be mistaken when once heard. It sings perched on a twig in some of the smaller trees of the open land around the villages. The white on its outer tail-feathers, seen from beneath, gives the tail the appearance of being forked.

1630. *MOTACILLA VIDUA*. [Amalaka.]

Sharpe, *Ibis*, 1908, p. 341.

On the few occasions on which I have seen this (or a

similar) black-and-white Wagtail, the bird has been walking with its characteristic motion on the mud or sand or drift-wood at the margin of a stream, or flying swiftly over the water from one such place to another, sometimes with a sharp cry. But my specimen (No. 1873) was obtained while walking in the village street. Wading birds are often seen in such a situation, but this bird was shot in July, and was probably a resident (unless it could possibly have been on migration from the south).

1636. *MOTACILLA FLAVA*. [Amalaka.]

Sharpe, *Ibis*, 1908, p. 341.

The Yellow Wagtail is often seen in the village streets and much-frequented paths in the latter part of October, in November, and even in December. I have not yet noted it in other months. If it goes further south and returns again in the spring, I have failed to observe it on its return.

1647. *ANTHUS TRIVIALIS*.

Reich. V. A. iii. p. 311.

No. 2910. ♀. Biteye, near the River Ja, Feb. 23, 1908. Shot in a cassava-patch.

1743. *PHYLLOSTREPHUS CLAMANS*. [Mali.]

Bleda clamans Sharpe, *Ibis*, 1907, p. 460.

In this paper I have not often departed from Dr. Sharpe's naming of my birds. But I am glad of any authority that I can follow in removing this bird and others of Reichenow's genus *Phyllostrephus* from such close association with *Bleda notata* and *B. syndactyla*. These last are not only quite different in appearance, but are forest-haunting, insect-eating birds, often caught in snares among the dead leaves on the ground, whereas the species of *Phyllostrephus* mentioned in this paper are birds of the opener country, never caught in snares on the ground, while they live on fruit, and have lively and peculiar call-notes, in which the different species resemble each other.

The present species is given by the Bulu the same name as the *Indicator*, "Mali," probably from the resemblance in colour, and especially in the white outer tail-feathers. It is

a bird often found in the primeval forest, but still oftener in the second-growth forest, like that mentioned under *Ploceus bicolor* (above, p. 42), which consists largely of "aseng" trees (*Musanga smithii*), on the fruit of which it feeds. Its principal food is fruit, but it eats insects also. It has a call which I may express as "pee-ew!" uttered with energy, and accompanied by the spreading of the tail so as to display the white feathers. It has another note which may be called its song, using the word "song" with some latitude. Once I came upon several of these birds in the tree-tops near together, answering each other with "pee-ew!" But usually they are found singly or a pair together. No. 1869 was shot while crying "pee-ew!" and spreading its tail; it was a female and in breeding condition. After it was shot its mate was heard crying "pee-ew!" followed by a little song, though it was not seen. Nos. 1918 and 1919 were also mates that were answering each other.

Phyllostrephus indicator (Reich. V. A. iii. p. 390) probably has similar ways and a similar voice. It cannot be distinguished from *P. clamans* unless it is in the hand, and some of the birds observed may have been *P. indicator*. But those that were seen and afterwards shot, so as to be identified, belonged to *P. clamans*.

PHYLLOSTREPHUS VIRIDESCENTIOR. [Ntyandô.]

Pycnonotus viridescentior Sharpe, Ibis, 1907, p. 464.

No. 2509. ♀ ad. Iris brown; feet blue; bill black. Two large empty sheaths of ova in ovary; oviduct large. Caught on the nest, at evening.

The nest was a shallow cup exactly like that of *Pycnonotus gabonensis*, set in the triple fork of an "ôkôm" bush, and was found not far from the village. It was composed of shreds of the bark of weeds and leaf-petioles, with fine grass-stems inside. It measured internally in the two diameters 65 and 55 mm. The two eggs found in it measured 25.5 × 17 mm. and 23.5 × 17 mm.

[Two eggs are of an elongated pointed oval shape and slightly glossy. The ground-colour is pale greenish-white,

with obscure clouded markings of olive and grey concentrated into an irregular zone round the larger end; over these lie various irregular lines and scrolls of umber-brown, producing a marbled appearance.—O.-G.]

1754. PHYLLOSTREPHUS SIMPLEX. [Nkes.]

Bleda simplex Sharpe, Ibis, 1907, p. 459.

The "Nkes" is not a retiring bird. When I called it "shy" in my former note ('The Ibis,' 1905, p. 96) I ought to have spelled it "*sly*." Its peculiar "talk" is one of the commonest sounds in the bushes about villages, yet it flits about so quickly and hides so adroitly that it is hard to shoot. And when I said "it goes alone or in pairs," I might as well have omitted the word "alone." I never saw any other bird so continually accompanied by its mate. A pair of them seem inseparable and are always very near each other. When one "talks," the other chimes in so promptly that the two often sound like one bird; and in the days before I was fully acquainted with the "Nkes" I must have often supposed that I heard only one when there were really two.

1756. PHYLLOSTREPHUS FLAVIGULA (Cab.). [Nkes.]

Bleda flavigula Sharpe, Ibis, 1907, p. 458.

No. 2386. ♀; oviduct and abdomen of a sitting bird. Bitye, March 28, 1907.

This bird is called in Bulu by the same name as *P. simplex*, and my boys, who have shot it, say that it is similar in habits and voice to that bird. My specimen (No. 2386) was caught on the nest. This much resembles that of *Pycnonotus gabonensis* except in material, for it is entirely made of rather coarse leaf-petioles, with a few dry leaves in the base, and some brown adhesive woolly fibre-like cobweb holding it together on the outside. It was set in the angle of a palm-leaf stalk. The one egg was too much broken to measure, but appeared to be about the size of that of *Pycnonotus gabonensis*.

[A broken egg appears to have been of a blunt pointed oval shape and slightly glossy. The ground-colour is pale

creamy-white, covered all over with spots of umber-brown and with spots and small blotches of dark grey and lilac-grey, most numerous round the larger end.—O.-G.]

1759. PHYLLOSTREPHUS ORIENTALIS.

Phyllostrephus scandens orientalis Reich. V. A. iii. p. 398.

Nos. 2873. ♂, 2874. ♀, 2881. ♂. River Ja, Jan. 25 & 28, 1908.

These specimens were shot on the bank of the River Ja, where I was camping for a few days. The first pair were heard making a great racket in the tree-tops over my tent when I woke in the morning. Their noise was peculiar, being of the same sort of ringing and yet guttural tone heard in the "talking" of the Ngomejal (*Phyllostrephus leucopleurus*), but with more of the ringing quality. The pair were making this noise together, both "talking" at once, like the "Nkes" (*P. simplex*). Their breeding-organs were much enlarged. These birds must keep to the river-bank; else I should have got them where I had collected a great deal before, only a few miles away.

1760. PHYLLOSTREPHUS LEUCOPLEURUS. [Ngomejal.]

Bleda leucopleura Sharpe, Ibis, 1907, p. 460.

I cannot characterize the "Ngomejal" better than I have done already ('The Ibis,' 1905, p. 97). But I can add that a nest of the bird has been shown to me, though too badly torn up to be described. It was taken in October, on a swamp-palm-tree, and contained two well-grown nestlings.

1782. ANDROPADUS VIRENS. [Otok.]

Reich. V. A. iii. p. 412.

Eurillas virens Sharpe, Ibis, 1907, p. 462.

Here, again, I use the generic name adopted by Reichenow, so as to have all the species of "Otok" in the same genus, for they are certainly much alike.

My note under the head of "*Eurillas camerunensis*" ('The Ibis,' 1907, p. 462) should have been attributed to *E. virens*. This is the commonest species. It is that of

which the notes "have a clear, ringing tone that is pleasing," as I said previously ('The Ibis,' 1905, p. 97) without knowing the species certainly.

Besides the nest with eggs already reported ('The Ibis,' 1907, p. 462), another has been found. This was on a yam-vine in an old garden. There were two eggs in it, which measured 21.5×15 mm. and 22×15 mm.

[Two eggs of a nearly perfect oval shape; the ground-colour is pinkish-white, marked all over with rather obscure longitudinal reddish-brown markings and densely freckled and indistinctly clouded with obscure purplish-grey markings.—O.-G.]

ANDROPADUS EFULENSIS. [Otok.]

Sharpe, Ibis, 1907, p. 461.

No. 2802. ♀; abdomen, ovary, &c. indicating a sitting bird. Shot on the nest.

The "Otok" with the yellow moustachial streaks is sometimes called "Otok afan," that is, "forest Otok," because it is more inclined than the other species to the forest; but it is not strictly a forest-bird. Its notes, which it utters with great persistency while hidden in a thicket, are not musical, and deserve the name of *noise* or *racket* rather than of *song*. The yellow streaks down the sides of the throat, as is the case with all such markings in birds, are more conspicuous in life than in the skin. This species spreads out the plumage of the chin and throat, giving the fullest effect to the yellow feathers.

The nest (on which No. 2802 was shot) was a rough oblong cup of dried leaves and weed-stems, with fine horsehair-like vegetable fibre for lining, about 65 and 45 mm. on the inside diameters. Two eggs were in it, which measured 23.5×16 mm. and 24×16.5 mm.

[Two eggs are of a slightly pointed oval shape and slightly glossy; the ground-colour is white, rather sparingly spotted all over with purplish-brown and grey and with some larger blotches of paler and darker grey round the large end.—O.-G.]

PYCNONOTUS GABONENSIS. [Nkwe'ele, or Kwalawata.]

Sharpe, Ibis, 1907, p. 463.

No mistake was made in calling the Nkwe'ele "a versatile bird" ('The Ibis,' 1905, p. 98). It has many habits usually associated with other birds. It so frequently clings by its claws to the bark of a tree, using its tail for a support, that the tail-feathers become broken, and it is rather rare to see a bird with all its tail-feathers whole. It eats fruits, but seems to prefer insects. When an army of driver-ants spreads itself among the bushes of the open land around villages (the Nkwe'ele never goes into the forest), these birds may be seen busily pecking and eating something as they hop about to keep out of the way of the ants. But it is not the ants themselves that they eat, but the other insects—beetles, cockroaches, crickets, &c.—that are driven by the ants from their hiding-places. This I know in one case at least by examining the stomach of a bird shot among the ants.

An egg measures 24.5 × 17 mm. (See also 'Ibis,' 1907, p. 463.)

[Three eggs of the usual Bulbul type, of a rather bluntly pointed oval shape and slightly glossy; the ground-colour is white, densely and finely mottled and freckled all over with pale lilac-grey and light red, the markings in some cases being more or less concentrated into a zone round the larger end.—O.-G.]

1829. ANTHOTHREPTES FRASERI.

Sharpe, Ibis, 1908, p. 340.

This plain green Sunbird is a bird of the forest, and was more abundant at Efulen than at the Ja. It is a common member of the *éjak* (see 'Ibis,' 1905, p. 462). Its food consists of insects of all kinds, as well as spiders.

The remarkable little song of some small forest-bird, to which I have often listened, I am *almost* satisfied is sung by this bird, as my boys say they have heard the bird sing it, and I myself have heard the song in places where it was to be expected. It consists of four musical notes in a

descending scale, repeated, in a fine, sweet voice, with great rapidity, over and over again, for almost as long as a man will stand and listen, without a pause for breath. It is a performance that arrests the attention. It seems to have impressed the mind of the African Thrush also, for these notes have been heard to mingle in the Thrush's song.

1833 *a.* ANTHOTHREPTES HYPODILA. [Zesol.]

Sharpe, Ibis, 1908, p. 340.

1835. ANTHOTHREPTES TEPHROLÆMA. [Zesol.]

Sharpe, Ibis, 1908, p. 340.

These two species are easy enough to distinguish from each other when in the hand—the males at least. Yet in my notes they are not always distinguished, and so I speak of them together. Both are found in every place where I have collected long. They live among the bushes and smaller trees of the open cleared land, not in the forest. Their food is more varied than that of most Sunbirds. They often eat small fruits; and a certain kind of hard seed as large as a small pea is sometimes swallowed whole, almost filling the little stomach. Among the insects most frequently found in stomachs are small moth-larvæ and spiders. In the stomach of one bird (*A. hypodila*) were four or five minute snail-shells.

Besides many nests of small Sunbirds found and not identified was one which, from the well-grown nestling in it, was seen to belong to one of these two species. It was hanging from a slender bough, and was composed of fine fibres; it was decorated outside with whitish bits of dry leaves and lichen, and abundantly lined with very soft white plant-down.

1840. CHALCOMITRA OBSCURA. [Zesol.]

Sharpe, Ibis, 1908, p. 338.

This is probably the most common species of Sunbird here, considering that it is found not only in the bushes about villages where most of the Sunbirds are common, but also in the forest. Its little song has been already described

correctly ('The Ibis,' 1908, p. 338). The food is nearly always found to be spiders. Sometimes in the stomachs I have found what looked like little particles—stamens, &c.—of flowers.

An individual of this species was found caught in the web of a big black-and-yellow spider, a sort of retribution for the many little spiders it had killed and eaten.

Nests and eggs have now been certainly identified by having the bird caught on the nest, as Bulu boys well know how to do. These nests are hung from a twig and composed of fine fibres, some of which pass over the twig, mixed with dry leaves or grass in varying proportions, with little or no down inside, differing thus from the nests of some Sunbirds.

The eggs are two in a clutch. They measure 17–18 mm. × 13 mm. In my notebook I speak of some of them as of a dull (grey?) colour, with blackish spots and irregular marks scattered sparingly over them. But the two eggs from one of the nests—just as certainly identified as the others—differed greatly from them in wanting the blackish spots and markings. (I seem, unfortunately, to have left behind the eggs of this species, and could not shew them to Mr. Grant.)

1848. *CHALCOMITRA CYANOLEMA*. [Zesol.]

Sharpe, *Ibis*, 1908, p. 339.

This is rather a common Sunbird, both about Efulen and in the Ja district. It is seen around flowering shrubs and vines. The food found in the stomach was sometimes spiders, sometimes hard seeds resembling grape-seeds, sometimes what appeared to be bits of flowers, as if the flowers themselves had been picked to pieces and swallowed. In the stomachs of these and other Sunbirds is often found a liquid, which may consist of the nectar of flowers mixed with the stomach juices. I did not feel like tasting it to find out.

1857. *CHALCOMITRA ANGOLENSIS*. [Zesol.]

Sharpe, *Ibis*, 1908, p. 338.

This Sunbird is rather common, and is seen most often about the flowering twigs of some tree standing in an open

place. The stomach-contents consist mainly of insects, including spiders. These and other Sunbirds *do* often hover on the wing before flowers, like Humming-birds, but only for a few moments at a time.

The beautiful velvety dark brown of the males of this species becomes much faded, or bleached, when the plumage is worn, so that in the moult the new feathers are much darker than the old.

1866. ANABATHMUS REICHENBACHI. [Zesol.]

Sharpe, Ibis, 1908, p. 340.

Of this little Sunbird only two adults and one young specimen were obtained, all at the Ja. The last adult and the young one were caught, along with a *Cinnyris chloropygius*, by a boy, at evening, at their roosting-place among tall weeds near a village.

Both the adult specimens were females and are wrongly marked "♂" in Dr. Sharpe's paper. This fact is remarkable, because they have the bright colours usually possessed by the males alone among the Sunbirds, including the yellow pectoral tufts. I was surprised at the time of skinning to see that they were females, and so looked carefully to be sure that there was no mistake. In both cases the ovaries shewed small ova. When I examined the second specimen and found it a female, I put the body in spirit and sent it to the Museum; but it seems not to have arrived there. Lately I have found in Reichenow's 'Vögel Afrikas' (iii. p. 468) the statement, under this species, that "the female is like the male in colour."

1874. CINNYRIS SUPERBUS (Shaw). [Odima-Zesol.]

Sharpe, Ibis, 1908, p. 338.

This, the most richly dressed and largest of our Sunbirds, makes its appearance, rather infrequently, about flowering shrubs and trees, and most often about the great opening buds of staminate flowers at the end of a young bunch of plantains or bananas. It frequently perches for a moment on the plantain-bunch, but when thrusting its bill among the flowers it often hovers on the wing as well. Though this

hovering, in the manner of Humming-birds, is never kept up for long at a time, it is a mistake to say that Sunbirds do not hover at all.

The stomach-contents of these birds consist most frequently of spiders and a liquid. In my notebook, under one specimen, this liquid is stated to have been "sweet"; I must have ventured to taste it.

In my paper on "Breeding-Seasons" ('The Ibis,' 1908, p. 568) are some remarks about the moulting of these Sunbirds.

1884. *CINNYRIS CHLOROPYGIUS*. [Zesol.]

Reich. V. A. iii. p. 486.

Cinnyris preussi Sharpe, Ibis, 1908, p. 338.

As the little Sunbirds called "*C. preussi*" in the paper in 'The Ibis' cited above have the upper tail-coverts green like the backs and not violet, they would seem to be referable to *C. chloropygius*. Most of my birds were too small to be *C. preussi*, but they varied in size a good deal.

This, the smallest of our Sunbirds, is the most abundant species on the shrubs and flowering trees of the open country, though never seen in the forest. Many individuals assemble about the flowers, and a tree in blossom may actually be full of them, at a distance looking like insects flying among the flowers. They move very quickly. When one of these little fellows passes near it is scarcely visible, from its smallness and the swiftness of its flight. They are rightly called Sunbirds, in that they seem to like the sunshine, even when it is hot. At mid-day, when other birds have sought the shade and are still, these little Sunbirds are flitting about as actively as ever.

They are generally silent, except for a little chirping, like that of an insect, made in the smallest of voices as they flit by. But the males have a pretty little song that is occasionally heard.

The food of this small species seems to be about the same as that of the larger Sunbirds, consisting mostly of small insects, mainly spiders. In some stomachs were found what looked like tiny bits of flowers that had been picked and

swallowed. Sometimes tiny shells and grains of sand were found!

Many of the nests of Sunbirds found hanging on bushes probably belong to this species. Some of them have been identified by having the bird caught in them; but the birds thus caught have always been females, and it is assumed that the plain-coloured females corresponding in measurements with the males of this species really belong to it. These nests are constructed, like those of other Sunbirds already described, of stringy fibres more or less mixed with dry leaves and lichens, and lined with fine white pappus-down. Though the entrance to the nest is very small (20 mm. in diameter, or just fitting the thumb) the inside is roomy for so small a bird. The nests with sitting birds were all found in the month of April, in different years. Though this was partly a mere accidental coincidence, since breeding birds were killed in several other months, yet doubtless it shews a preference for that month for breeding, when rains, but not the hard pouring rains, refresh the vegetation after the drought. The number of eggs of this Sunbird was never more than two, and they varied little in size; length 14–15 mm., breadth 10·5–11 mm.

[Five eggs are of a pointed oval form and are more or less glossy. The ground-colour is pale bluish-white, with a strongly marked zone round the larger end, consisting either of separate spots or of confluent clouds and longitudinal streaky markings of dark grey, with a few minute blackish surface-markings.—O.-G.]

(I wish here to mention a number of specimens of tiny Sunbirds which I have collected, in size and in the bill corresponding to this species, but with plain olivaceous plumage. They have been omitted from Dr. Sharpe's paper. They might be thought to be females or young males of *C. chloropygius*; but among them were many males with the testes large—sometimes extremely large. And some that were moulting shewed the new plumage that was just growing to be of the same colour as the old. These males in plain plumage appear to be very numerous.

Either the first plumage of *Cinnyris chloropygius* continues for a long time after the bird has begun to breed, and there is at least one moult before the changing moult; or there exists another species of the same size having a plain olivaceous plumage throughout life.)

1914. PARUS FUNEREUS.

Pentheres funereus Sharpe, Ibis, 1908, p. 337.

The two specimens obtained were all that I have ever seen. The first was shot on a little tree at the back of my house at Efulen, where it was in the act of pulling to pieces a large caterpillar. In the stomach were found bits of the caterpillar, just swallowed. When this bird was freshly killed, the nostrils were seen to have a raised ring round them, as in *Indicator*; when the specimen dries, this is not apparent. The other example was obtained at the Ja, shot by a boy, who said that there were two together.

1943. PHOLIDORNIS RUSHIÆ.

Sharpe, Ibis, 1908, p. 324.

These pretty little creatures, which would stand a good chance of a prize for the smallest of birds, are generally seen, three or four together, flitting about in the tree-tops, catching insects, or rather picking them off the twigs; for the insects most frequently found in their stomachs were the *Cocci* that adhere to the bark of twigs. A favourite foraging-place with them seemed to be the parasitic plants, like mistletoe, found on the branches of trees. When feeding they were heard to make a scarcely audible little twitter.

One of these little birds was brought to me alive by a boy, who said that he had caught it in his hands. The way in which he came to be able to catch it was evident when I examined the bird, for its wing-quills were found to be stuck together by the strong, viscid, yellow threads of a spider's web. This is not the first small bird which I have known to be caught by becoming entangled in the web of a certain kind of large black-and-yellow spiders.



West, Newman imp.

PARMOPTILA WOODHOUSII.

1944. *PARMOPTILA WOODHOUSII*. (Plate II.)

Sharpe, Ibis, 1908, p. 323.

Nos. 2130, 2130 *a*. Bitye, Jan. 4, 1907. Young, caught in the nest. The four small white wattles at the gape (see the upper figure in the Plate) were conspicuous.

These birds are seen going about in little companies of half-a-dozen, both in the forests and in the bushes or open land. Their food is insects, largely small ants. The four specimens Nos. 1784-7 were killed at one shot while engaged in picking from a bush the small ants that were swarming over it.

In my note already published in 'The Ibis' (1908, p. 324), I refer to the large dome-shaped nests of these small birds. I have seen more of these nests since, and there is now no doubt about their belonging to this species. The four immature specimens Nos. 1356-9 were caught in such a nest. Another nest, shown me in a better state of preservation, was a rough mass as big as a half-gallon measure, composed of fine dry grass, with a quantity of green moss thrown loosely over the outside. It was placed on a forked twig which was growing out horizontally. The entrance was at one side and had a sort of portico covering. An egg, taken from a nest in which were also two young birds, measured 14.5 × 10.5 mm.

[The egg is of a distinctly pointed oval shape, devoid of gloss and pure white.—O.-G.]

2002. *CISTICOLA ERYTHROPS*. [Abankwat, or Tinkwat.]

Sharpe, Ibis, 1908, p. 317.

This lively and bold little bird has already been characterized in my brief note in 'The Ibis' (*l. s. c.*). Its little song was spoken of, and also its sharp-toned notes, which are imitated in the name "*Abankwat*," the last syllable being brought out with an emphasis almost like the crack of a whip. When these notes are abbreviated at the beginning, they resemble the shorter name "*Tinkwat*." Still another call often uttered by this Grass-Warbler remains to be described. It is merely a long-continued and rapid repetition of one sharp note. The bird, sitting

on some bush or plantain-leaf, starts with its rapid "queek! queek! queek!" &c., and continues without a pause for breath until you would think that it must be suffocated and tumble from its perch from exhaustion. It must be able to breathe while using its voice.

Many nests of this bird have now been found. They are constructed like those of the Tailor-bird (*Orthotomus sutorius*), as they are described, being set in a sort of basket or sack formed of large leaves sewed together. Leaves with an adhesive surface are preferred. They are united by stitches made by puncturing the leaf-edge and passing through it a thread of what looks like several united fibres of yellow-brown spider's web. The thread is often only passed through and knotted on the outside, but sometimes is brought round and passed through again, making a true stitch. The nest itself, set in this sack of leaves, is a deep cup of dry grass-blades, with the edge built higher on one side than on the other. Inside this cup is a lining of the fine brownish pappus or down from the seeds of some plant. Other related birds making similar nests use different materials. The nests of this species seem to be always of grass-blades, and the downy lining is brown, not white. The identification of the nests has been effected by shooting the bird on the nest, or catching it on the nest at evening. Usually only two eggs are found, sometimes three. My eggs vary in measurement thus: length 16-19 mm., breadth 12-13 mm.

[In a series of eleven eggs the shape varies from a perfect oval form to a rather long pointed oval. The shell is distinctly glossy. The eggs are of two types. In the first the ground-colour varies from bright bluish-green to pale dull greenish-white, and the markings consist of rather large spots and blotches of pale red, reddish-lilac, and lilac-grey, which are either scattered over the entire shell or mostly concentrated round the larger end. In the second type the ground-colour is creamy-white, densely and minutely freckled all over, but especially in a zone round the larger end, with light red-brown and grey.—O.-G.]

2016. CALAMOCICHLA POENSIS. [Oto'o-Bisông.]

Sharpe, Ibis, 1908, p. 318.

The Bulu name of this bird and the scientific name of the genus mean almost the same, "Otok" being the name of some of the common Bulbuls, and "bisông" meaning "canes" of the big cane-like grass *Panicum maximum*. Both names are appropriate, for the bird seems never to be seen or heard outside the thickets of this big grass, which grows ten feet high, with the stalks close together. In such places it may be heard, but seldom seen, until it flits about among the grass-stems to within a few feet of you, when, if you shoot it, it is of no use as a specimen. Its notes are peculiar, being uttered in a sort of ventriloquial voice, and sound like human conversation in an undertone; sometimes they are sweet, reminding one a little of those of the Angôkôn (*Cossypha*).

2050. PRINIA BAIRDI.

Burnesia bairdi Sharpe, Ibis, 1908, p. 326.

This is a lively little bird of the bushes and gardens about villages—lively in its movements, though generally silent. It is not always silent, however, for I have seen and heard it uttering a long succession of rapid notes without pause like *Cisticola erythrops*, as described above (see p. 67). When perched on a twig, this little *Prinia* has a way of jerking up its long tail till it points forward, making an acute angle with its back.

No. 1398 was shot in its nest, and No. 2538 was caught alive in its nest. Both the nests were brought to me torn from their setting, but I do not think that they were placed in a sack of leaves in the manner of *Cisticola erythrops*, but rather set in a great tangle of dried herbaceous vines. Both were made of dry strips of grass-leaves, with a lining of grass-tops—no down. They were deep, with one side so raised as to be partly roofed over, and were very large for the size of the bird. The eggs found in each nest numbered three. Those of one clutch all measured 17×12.5 mm.; those of the other, from 15 to 16 mm. long by 12.5 mm. broad.

[Six eggs are of a nearly perfect oval form and distinctly glossy. The ground-colour is pale bluish-green or greenish-white, either blotched and clouded, especially round the larger end, with pale light red and grey, or minutely and densely freckled all over with pale light red, forming a more or less distinct zone round the larger end.—O.-G.]

2073. *APALIS BINOTATA*.

Sharpe, *Ibis*, 1908, p. 320.

This rather rare little bird has been obtained only at the Ja. There it is found in the open country of old clearings, where it has been seen in small trees, or in the tangle of vines hanging from trees, hopping and flitting from twig to twig, looking for insects.

No. 1488 was shot with bow and arrow in its nest, and the bird and the nest brought to me. The latter was a loosely woven little pocket suspended from a twig, and composed entirely of the *Usnea* that fringes the limbs of old trees, with a very few brown gossamer-fibres to attach it to the twig, and a slight lining of fine grass. An egg in the nest was broken.

2093. *CAMAROPTERA GRISEIVIRIDIS*. [Tinkwat.]

Sharpe, *Ibis*, 1908, p. 321.

Very common amongst the brush of felled trees in plantations and gardens, through which it is continually threading its way, looking for insects. Its loud sharp-toned notes have already been described ('The Ibis,' 1908, p. 322). The note is not always repeated just five times, but sometimes six or eight times.

No. 1495 was shot with bow and arrow in its nest, which contained three naked young birds, just hatched. It was, with great ingenuity, attached to the stem and two large leaves of an "ajom" (*Amomum*) in such a manner as to hang from them, one of the leaves being arched over it so as to form a perfect roof. The main material of the nest was very fine fibres; over the outside was a covering of

down like thistle-down, which in places was thrust through the leaves to form attachments. Another sort of wool, of tough yellowish-brown adhesive fibres, was used to form the stitches that held the edges of the leaves together, and also woven over the outside of the entire nest to hold the slippery thistle-like down in place.

2103. *HYLIA PRASINA*.

Sharpe, Ibis, 1908, p. 325.

A very common little bird of the tree-tops in the opener country and the borders of the forest—never found in the depths of the forest. It flits among the twigs hunting for its insect food, which is often found to consist of the *Cocci* that adhere to the bark of the twigs. It never perches fully in sight, like the similar little *Camaroptera*. A bird-call I had often heard coming from the thickest tree-tops or tangles of vines, which I called the “saw-filing note,” because of its piercing shrillness, and because it was double, like the drawing of a file across a saw and back again, though it was not so grating and harsh a sound as the comparison would suggest, was at last traced to this little bird.

2105. *STIPHRORNIS GABONENSIS*.

Sharpe, Ibis, 1908, p. 325.

2106. *STIPHRORNIS XANTHOGASTER*.

Sharpe, Ibis, 1908, p. 325.

Though Reichenow's arrangement is followed here as elsewhere, it seems strange to associate these two species (*S. gabonensis* found in the coast-region and *S. xanthogaster* at the Ja) with such birds as *Camaroptera* and *Sylviella*. These latter and other similar Warblers are birds of the bushes and brush of open land, not particularly secretive, but escaping hostile observation by their plain colours, small size, and lively movements. The species of *Stiphrornis* inhabit the dark forest and seek their food on the ground, while they light up the gloom with their bright colours.

My specimens were obtained in snares baited with termites, along with birds of the genera *Alethe*, *Turdinus*, *Bleda*, *Neocossyphus*, &c. Young birds have spots on the wing-coverts, as have those of *Alethe*.

SYLVIELLA BATESI.

Sharpe, *Ibis*, 1908, p. 319.

Both my specimens of this species were caught or shot in their nests. The male (which had the testes very large) seemed to be sitting. The two nests were alike, and resembled those of some other small Warblers in being pocket-shaped; but in materials and structure they were peculiar. These small pockets were made of short leaf-petioles, not woven together, but held together loosely by gossamer-threads (of spider's or caterpillar's web) running all among them, and extending up over the twig so as to form the attachment, which is not at one point of the twig, but extends along for several inches. Thus the whole structure is as flexible as a knitted bag. All over the outside are many particles of trash hanging to the gossamer-threads, that tremble at the slightest breath. Inside the bag are a few fibres for nest-lining. A single egg was found in each nest; the two were just alike, except in size, one measuring 19×12 mm., and the other 16.5×11 mm.

[Two eggs are of a long pointed oval form and devoid of gloss. The ground-colour is yellowish-clay, thickly mottled all over with umber-brown and grey, the markings being more or less clouded and indistinct.—O.-G.]

2124. SYLVIELLA VIRENS.

Sharpe, *Ibis*, 1908, p. 319.

Two of my female specimens were caught in their nests, which were suspended in the bushes or grass. The nest is a nicely constructed little pocket like that of a Sunbird. In one nest were three or four tiny eggs, which got broken when the bird was caught; it could be seen, however, that they were speckled on a white ground.

2152. PHYLLOSCOPUS SIBILATRIX.

Sharpe, Ibis, 1908, p. 319.

My specimens were shot at different dates during the months forming the winter of Europe, the latest being March 26. All that I have shot or seen were in the tree-tops of the open land, where they were busily flitting about, pursuing insects. They seemed to prefer a certain kind of tree with open, spreading foliage; and more than once were seen in trees just coming into leaf, where the mucilage of the buds attracted insects.

2228 b. TURDUS PELIOS SATURATUS. [Etyito.]

Sharpe, Ibis, 1902, p. 95.

Merula saturata Sharpe, Ibis, 1908, p. 124.

To my brief note about the Etyito in 'The Ibis' (1905, p. 473) I have to add a description of the nest and eggs. But first I must say a word more about its song. Some individuals, at least, are as fine songsters as any Thrush that I know. One that I have listened to many an evening at Bitye could pour forth a song of endless variety, now mocking other birds, now uttering notes of its own, all in a full rich voice.

Nests of this bird are not infrequently found on plantains or at the base of the palm-fronds, about villages. They are always in damp places, and have been most often found in the rainy season; the base of the nest is always of damp, rotting fibres of weeds or plantains, and in one a weed-seed had germinated and was growing out of the side of the nest, which had eggs in it. The top part of the nest, however, is always dry—that is, composed of rootlets and small weed-stems. The number of eggs found was either two or three; they vary in length from 24 to 28 mm., and in breadth from 20 to 21 mm.

[A series of eight eggs, which vary in shape from a very wide blunt oval to a wide regular oval and are somewhat glossy. The ground-colour varies from bluish-green to pale bluish-white, and in one specimen it is warm cream-colour. Some

specimens are mottled all over with pale red and lilac, others are similarly marked, but the markings are mostly confined to the larger end. The markings vary considerably in different specimens: in some they are larger and more distinct, in others they are finer and more clouded.—O.-G.]

EXPLANATION OF THE PLATES.

PLATE I.

Caprimulgus batesi, p. 25. From the type.

PLATE II.

Parmoptila woodhousii, p. 67. Adult (below) and young, shewing the white markings on the bill (above).

II.—*Contributions to the Ornithology of the Sudan.*—
No. III.* *On Birds collected by Captain E. P. Blencowe in the Bahr-el-Ghazal Province.* By A. L. BUTLER, F.Z.S., M.B.O.U., Superintendent of Game Preservation, Sudan Government.

IN December 1907, Captain E. P. Blencowe, of the Army Service Corps, who was proceeding to the Bahr-el-Ghazal Province in connexion with the transport arrangements for supplying the various military posts, kindly agreed to take with him a native boy whom I had trained to skin birds, and to collect for me such specimens as he had time to shoot along his line of march.

The following paper contains a list of birds which he obtained, with the localities and dates added and a few remarks.

Captain Blencowe left the Nile at Shambe, and travelled first to Rumbek (distance about 90 miles), crossing the Lau and Naam Rivers; then he marched to the Tonj River, crossing the Gell River on the way (distance about 75 miles over flat forest-country with black cotton soil); thence to Wau (about 70 miles—undulating, forest-covered, ironstone country); from Wau to Ukanda (45 miles—country flat, all forest);

* See 'The Ibis,' 1905, p. 301, and 1908, p. 205.